

THE MASTER PLAN
FOR THE
PHYSICAL DEVELOPMENT
OF
THE CITY OF NEWARK, N. J.



CENTRAL PLANNING BOARD
NEWARK, NEW JERSEY

1 9 4 7

PRICE FIVE DOLLARS



GEORGE VAN PHOTOS
NEWARK, NEW JERSEY

Airview of Central Business District - 1947

Board of Commissioners of the City of Newark

HONORABLE VINCENT J. MURPHY, Mayor and Director
Department of Revenue and Finance

HONORABLE JOHN A. BRADY, Director
Department of Public Affairs

HONORABLE MEYER C. ELLENSTEIN, Director
Department of Public Works

HONORABLE JOHN B. KEENAN, Director
Department of Public Safety

HONORABLE RALPH A. VILLANI, Director
Department of Parks and Public Property

Central Planning Board of Newark

Members

HON. VINCENT J. MURPHY, Mayor
Director of Revenue and Finance

HON. JOHN A. BRADY, Director
Dept. of Public Affairs

HON. JOHN B. KEENAN, Director
Dept. of Public Safety

PETER A. CAVICCHIA

JULIUS S. RIPPEL

ARTHUR PERKOFF

MRS. MEYER KUSSY

DR. JAMES E. LEE

GERARDO J. SPATOLA

Officers

PETER A. CAVICCHIA
Chairman

GERARDO J. SPATOLA
Vice Chairman

MRS. MEYER KUSSY
Secretary

Offices

Suite B-7
Newark City Hall
Newark 2, New Jersey

JOHN R. BURNETT
Executive Secretary

PETER J. O'TOOLE
Publicity Director

FORMER MEMBERS OF THE PLANNING BOARD

FRED BIGELOW JOSEPH M. BYRNE, JR. OTTO KRETCHMER JOHN R. HARDIN, JR.

LEWIS B. BALLANTYNE* HOWARD ISHERWOOD* EDWARD J. MAIER*

(* Deceased)

HARLAND BARTHOLOMEW and ASSOCIATES — Planning Consultants

HARRY W. ALEXANDER, Resident Planner

CITIZENS' ADVISORY COMMITTEE

OFFICERS

FRANKLIN CONKLIN, JR. Chairman

RALPH LAYTE, Vice-Chairman

WILLIAM C. COPE, Secretary

Offices

Suite B-7 — Newark City Hall

A. A. Adams
Charles Allen
William W. Anderson
George W. Andruss
Archie H. Armstrong

Dr. Carl A. Baccaro
Carl W. Badenhause
William G. Banks
Thomas V. Barber
Hugh E. Barnes
Edward F. Bataille
William J. Behrens
Albert C. Beissert, Jr.
Harry Berger
Dr. George H. Black
Romolo Botelli
Willard I. Bowman
Stephen Boyle
Junior C. Buck
James Buono
J. Mercer Burrell
James Byrne

Mrs. Marie-Hellene Caldbeck
Louis A. Canarelli
Leo P. Carlin
Vincent Carson
Mrs. Peter A. Cavicchia
Miss Katherine Coffee
Max Cohen
Saul Cohn
Franklin Conklin, Jr.
Dudley L. Coles
Frederick J. Collins
Curtis Colwell
Arthur J. Connelly
Dr. John J. Connolly
Henry C. Connor
Joseph Conway
Anthony Cook

J. Leo Cooke
William C. Cope
Horace K. Corbin
Frank Cozzoline
J. Ernest Crane
Dr. Charles V. Craster
David Cronheim
Allan R. Cullimore
Edward Cyr
Meyer E. Danufsky
M. De Barros
Joseph Di Stasio
Franklin D'Olier
Leonard Dreyfuss
Sargent Dumper
William Dunkel
Joseph P. Dunn
Fred Dupont

John Ellison
Edward C. Epple
Charles F. Evans
John Everett, Jr.

Eugene A. Farrell
James E. Farrell
Lloyd M. Felmly
Mrs. Grace Fenderson
William C. Fiedler
Sidney Finkel
Edward I. Forman
Terrance Foy, Jr.

James A. Garratt
Miss Helen M. Garvin
Victor J. Gialanella
Arthur T. Giblin
Simon Gittleman
Monsignor Ralph J. Glover
Bertram H. Gold
Josef Grayson

William J. Griffin
Mrs. Parker O. Griffith
Joseph H. Gunn

Joseph Hagen
Mrs. John F. Hagerty
J. Anton Hagios
Joseph P. Halpin
Dr. Samuel L. Hamilton
Franklin Hannotch
Mrs. John R. Hardin, Jr.
Alex Harris
Otto Hauser
Paul E. Heller
Lewis Herrmann
Dr. John S. Herron
Arnold Hess
James P. Higgins
John J. Hill
Edward S. Hipp
Miss Katherine Hoffman
Mrs. Mildred Holzhauser
Fraser Holzlohner
Gilbert Hunsinger
Thomas E. Hunt
Thomas M. Hunter
Albert Hutloff

William Jackson
Luther Jacobs
Mrs. Evelyn J. Jeffrey
Walter F. Johnson
Bernard Jones

Dr. John B. Kaiser
Samuel A. Kaphan
Richard Keber
Carlos D. Kelly
Miss Alice W. Kendall
Ormonde A. Kieb
Clifford C. Kimmerle

CITIZENS' ADVISORY COMMITTEE (Continued)

Philip Klein
Mrs. Stephanie Palmer Koplin
William Kraibuhler
Charles Kramer
Allan Krim
Joseph J. Kroehl
Rudolph Kruger

S. A. R. Lancto
Ralph R. Layte
Jack H. Lehman
William E. Lehman, Jr.
Harold Lett
Rabbi L. M. Levitsky
Robert E. Lexa
Harry Lichtman
Joseph A. Liddy
Mrs. A. G. Link
Dean Ernest Little
Warren J. Lockwood
Miss Frances Loventhal
Herman Lozowick

Harold J. McCabe
Richard McCandeless
Dr. E. Mae McCarroll
Thomas N. McCarter, Jr.
Jesse B. McCullen
Arnold McGhie
Thomas F. McHugh
Charles H. McSpiritt
Arthur Manchee
Miss Mary T. Markey
Mrs. Rosamond Stewart Marrow
James Marshall
James J. Marzulli
William L. Maude
Francis P. Meehan
Earl R. Mellen
Allen J. Michaels
John S. Miano
Edward Minthorne
Stephen J. Moran
Dr. Andrew V. Morris
George I. Moskowitz

Albert W. Neuscheler
Jacob L. Newman
Dr. M. R. Niefeld
Christopher Nugent

Samuel Offen
Mrs. William Hamilton Osborne
James T. Owens
Anthony Paglie
Mahlon W. Parsons, Jr.
Herman Pekarsky
R. F. Perrott
Miss Ann M. Peterson
Henry S. Puder

Joseph Quillin
John J. Quinn

Russell B. Rankin
Charles Dallas Reach
Harry C. Regan
Charles A. Reilly
Joseph Reilly
Matthew Reuther
Rev. Charles Lee Reynolds
Fred M. Rosseland
Abraham Rubin
Mrs. Alice Ruotolo
Edward J. Ryan

Andrew J. Scales
Marcel Scherer
William P. Schorn
Edward Schickhaus
Joel L. Schlesinger
George B. Schrade
Charles B. Schubert
Edwin E. Schumacher
Fred Scott
Mrs. Wallace M. Scudder
Ernest Selbert
Max Sherman
Robert S. Sherwin
Edward Shinn

Joseph Siegler
Robert L. Simmonds
Herman Sirota
Richard Siver
Mrs. Sara Skwirskey
Edward Slater
Mrs. Isabelle M. Smith
Sylvester Smith
Mrs. Thomas Smith
Dr. Earl H. Snively
Paul B. Sommers
Fred G. Stickel, Jr.
W. Paul Stillman
Miss Miriam Studley
Miss Regina M. Sullivan
James M. Symington

Henry C. Tresch
Harry A. Trotter

Mrs. Esther K. Untermann

• William T. Vanderlipp
Charles Villano
John Vohden

William J. Waldron
Russell P. Walker
Bernard A. Ward
Dr. William R. Ward
Charles H. Watts
Rev. Curtis T. Wilcher
Frank C. Williams
John Williams
Jerome Wiss
Carl K. Withers
Eugene Wolfe, Sr.
E. W. Wollmuth

Joseph Yacullo
Roger M. Yancey

Robert A. Zachary

TABLE OF CONTENTS

	Page
PREFACE	1
FOREWORD	3
INTRODUCTION	5
CHARACTER AND BACKGROUND	7
POPULATION - PAST, PRESENT AND FUTURE	11
LAND USE AND ZONING	21
The Land Use Survey	21
Future Land Use Requirements	26
The Proposed Zoning Ordinance	28
Administration	34
HOUSING	37
A Proposed Comprehensive Housing Program for Newark	40
MAJOR STREETS	51
Summary of Street Improvement Program	52
Major Street Plan	61
Central Business District	72
Proposed Street Improvement and Parking Plan	76
LOCAL TRANSPORTATION	83
Immediate Re-routing Plan	85
Conversion of Subway to Trolley Coach Operations	87
Business District Routings	88
Ultimate Routing Plan	92
Rapid Transit	93
TRANSPORTATION - WATER AND AIR	99
TRANSPORTATION - RAIL AND TRUCK	105
SCHOOLS AND RECREATION	111
Proposed System of Elementary Schools and Playgrounds	111
Present and Proposed Junior and Senior High Schools	118
Present and Proposed System of Large Parks and Neighborhood Parks	121
PUBLIC BUILDINGS	125
War Memorial Plaza	126
Cultural Center	130
A LONG RANGE CAPITAL EXPENDITURE PROGRAM	135
Summary of Program	138
Effect of Proposed Improvement Program on Future Tax Rate	142
ADMINISTRATIVE POLICY AND PRACTICE	153

LIST OF PLATES

	Page
Newark in 1806	Frontispiece
Airview Central Business District	Frontispiece
1. Population Growth - Newark and Other Governmental Units	12
2. Population Trends by Statistical Areas	15
3. Areas that have Lost Population	19
4. Total Number of Dwelling Units Erected in Newark and Essex County	42
5. A Proposed Housing Program for Newark	43
6. Types of Neighborhoods	45
7. A Proposed Redevelopment Plan for the Third Ward (Area "A")	49
8. A Proposed Redevelopment Plan for the Third Ward (Area B-1)	50
9. Existing Street Widths	55
10. Vehicular Traffic Flow	57
11. Traffic Flow on Principal Highways	59
12. Principal, Present, and Proposed Regional Highways	60
13. Major Street Plan	(opposite page) 61
14. Essex County Section of Proposed Freeway	63
15. Proposed Improvement of Raymond Boulevard and Morris Canal (In two sections)	69
16. Proposed Street Improvements and Off-Street Parking Facilities	79
17. Perspective View of Proposed Military Park Garage	81
18. Immediate Transit Plan	86
19. Diagrammatic Vehicular Flow - Immediate Plan	89
20. Ultimate Transit Plan	91
21. Diagrammatic Vehicular Flow - Ultimate Transit Plan	94
22. Present and Proposed System of Rapid Transit Facilities	95
23. Relationship of Port Newark to the Harbor Facilities of the Port of New York	100
24. Port Newark - Existing Development	102
25. Existing Railroad Facilities and Railroad Property	106
26. Proposed System of Elementary Schools and Playgrounds	112
27. A Proposed Plan for the Development of the Dayton Street School, Community Center and Playground	116
28. A Suggested Plan for the Development of an Enlarged Bragaw Avenue School Site	117
29. Proposed System of Junior and Senior High Schools and Playfields	119
30. Present and Proposed Large Parks and Neighborhood Parks	122
31. Proposed Plan for the War Memorial Plaza	127
32. Perspective View of Proposed War Memorial Plaza	129
33. Proposed Plan for a Cultural Center	131
34. Perspective View of Proposed Cultural Center	132
35. Proposed 5-year Public Improvement Program	137
36. Past Net Debt and Future Estimated Net Debt and Bonding Capacity	147
37. Past Cost of Government and Future Estimated Cost	149

LIST OF TABLES

	Page
1. Past Growth of Population in the United States, New Jersey, Newark and Environs	13
2. Trends of Past Growth and Estimated Future Population	16
3. Population Trends - Governmental Units - Essex County	17
4. Existing Land Uses	23
5. Existing Commercial Development	24
6. Existing and Probable Future Land Use Requirements	27
7. Comparison of Existing and Proposed Zoning Districts - Newark, New Jersey	32
8. Types of Dwellings 1940	39
9. Contract or Estimated Rent all Reported Dwelling Units 1940	41
10. Existing Off-Street Parking Facilities in The Central Business District	73
11. Existing Curb Parking Facilities in the Central Business District, Newark, New Jersey	75
12. Analysis of Existing Parking Facilities in the Central Business Districts of Ten Large American Cities	77
13. Estimated Future Parking Space Requirements in Central Business District	78
14. Trends in Miles Operated, Passengers Carried and Gross Revenues of Newark and Essex Division, Public Service Corporation	84
15. Present Elementary School Data	114
16. Present and Estimated Future Population and School Enrollment	115
17. Total Net and Per Capita Assessed Valuations	140
18. Allocation of Expenditures to Governmental Functions (1926-1946, Incl.)	143
19. Sources of Municipal Revenue - (Current Fund) 1926-1946, Incl. - Newark, N. J.	145
20. Analysis of Future Bonding Capacity Under Present Statutory Limitations 1948-1970 Incl. - Newark, N. J.	148
21. Effect on Tax Rate of Proposed Capital Improvement Program 1947-1971, Incl. Newark, N. J.	151

PREFACE

To the Citizens of Newark, New Jersey:-

The older cities of America have almost universally met with their "Day of Reckoning" — a Day brought on by long years of neglect of the fundamental American principles of "life, liberty, and the pursuit of happiness". Years, during which, "Property Rights" were considered as the sacrosanct foundation of "rugged individualism" and the basic precept upon which our Government functions. Because of this belief, our cities grew into a physical form-order designed to meet the needs of the machine age, and local governments gave paramount consideration to the superficial embellishments of showy public structure and services. Stringent necessity forced our laboring classes to live in close proximity to their places of employment and in hovels unfit for human habitation. Immigrants were housed in the slum areas of our cities, and the native poor in the cast-off dwellings of the medium and well-to-do classes. Congestion was the rule, and adequate living the special privilege of the financially successful.

Under these conditions, is it any wonder that our cities became plague centers for disease and cesspools of crime vice? It is shameful, indeed, that these conditions were permitted to come into being and exist for so long a period.

It was not until the early 1800's that New York, America's largest city, installed sewers and made preparations for a purer water supply. Even this was not done for humanitarian purposes, but because the city had grown so rapidly that open sewage in the streets had become an offense to the eyes and nostrils of the wealthier classes, and disease germs refused to differentiate between blue blood and red.

It was 1867 when our first Tenement House Laws were enacted and they were so poorly

drawn as to be practically inoperative. Not before 1901 was an honest Legislative attempt made to protect the health and safety of poorer classes, but even this Legislation was based on the sacred cow of "property rights", and non-conforming properties then in existence were permitted to remain. However, this Act was a beginning and gradually other laws were passed to further restrict "man's inhumanity to man" as it affected urban housing and public health.

The pioneer zoning laws of 1916 foreshadowed a better future for our cities but the shibboleth of "property rights" was still paramount and zoning was weak and ineffective until the late 1920's when our Courts finally ruled that Municipal and State Legislative Bodies had the right, under their police powers, to force individual property owners to conform to zoning restrictions, established for the common good of the community. The curse of non-conforming uses, established prior to our Zoning Acts, is still with us.

Contributing also to the plight in which our cities now find themselves, is the imposition of modern traffic on an archaic municipal street system. Planned and laid out in the familiar grid system, our city streets were designed for the slow moving traffic of the horse and buggy era, with public transportation confined to certain main thoroughfares and dependent upon the old fashioned and unwieldy trolley car. The development of the automobile has increased vehicular traffic to such an extent that our main arteries are overwhelmed, and what were formerly quiet residential streets now carry more traffic than the main streets of yesteryear. This, too, has helped to blight our cities and is a major factor in the decentralization process that has driven so many of our citizens into the suburbs for peace and quiet and has deprived our shopping areas

of large numbers of customers. Such conditions, quite naturally, depreciate property values and, consequently, tax rates go up -- a vicious cycle that feeds upon itself. The citizen morale and civic pride so necessary to a successful and prosperous city disappears under these conditions.

The vast majority of American cities are suffering from these ills and our own City of Newark is no exception.

Founded in 1666, the City is now 281 years old and subject to all of the municipal ills arising from slums, blight, inadequate street pattern, over-crowding, obsolescence, population change, and high tax rate.

Realizing this, the Board of Commissioners of the City appointed a Central Planning Board in 1943 and authorized it to make a technical survey of Newark in order to suggest ways and means by which the downward trend could be reversed and a new and greater Newark created.

The survey, and the necessary related studies, took three years to complete and the Comprehensive Master Plan that has evolved is a frame work upon which the future Newark can be developed.

The Citizens' Advisory Committee worked in close collaboration with the Central Planning Board and has given careful deliberation to all of the suggestions and recommendations contained in the Master Plan. It is the considered opinion of these two bodies that Newark's "Day of Reckoning" can be met with the resources at hand by the firm and united efforts of the citizens and officials of the City. These efforts will raise the City of Newark to the forefront among the cities of America.

With the firm conviction that the statements contained herein are true as to data; logical as to assumption; and feasible as to application; we have adopted this Plan as the Comprehensive Master Plan for the City of Newark, New Jersey, and commend it to you as the text through which to build a finer and greater Newark, wherein the physical, cultural, social, and esthetic needs of the community are balanced parts of an harmonious whole.

THE CENTRAL PLANNING BOARD OF THE
CITY OF NEWARK, NEW JERSEY

Peter A. Cavicchia
Chairman

FOREWORD

NEWARK, the largest city in New Jersey, is the commercial, industrial, and cultural center of an urban area containing more than a million people. About half of these people live in Newark, while many of those residing elsewhere, work in Newark, shop there, attend its theatres, and are part of the complex economic and social structure inherent to a large urban community.

The people who live and work in Newark require many things, among them being houses to live in, industries, stores, banks and office buildings in which to make a livelihood, churches and clubs for social intercourse, streets and public utilities, transportation lines to enable them to get about the city, schools, parks, and playgrounds for their education and recreation.

City Planning is concerned with seeing that all of the physical facilities needed by the people are properly arranged in relation to one another, and are built at a proper scale to most efficiently fulfill their function in the urban economy. The City Plan is essentially a framework within which the City grows and a guide to follow in that growth.

The City Plan is dynamic and not a static mold. It must be kept up to date and should be flexible enough to permit variation in detail when necessary. It must be bold and challenging; yet practical enough to remain within the City's financial ability to carry out. Most important of all, it must be a plan **of the people and for the people**. Otherwise, it is doomed to failure from the beginning.

The plan presented herewith is ideal in the sense that it strives to attain civic accomplishments hitherto not reached in Newark. However, it is not an idle dream, and its main objectives can be realized if the people of Newark really want a better city in the future.

The Central Planning Board of Newark was established in 1943. Following its organization, a contract was entered into with Harland Bartholomew and Associates for the preparation of a Comprehensive City Plan for Newark. A program was agreed upon, and during the three year period of plan preparation the following reports were submitted to the Board for action, adoption, and transmittal to the Board of City Commissioners. These reports constitute the Comprehensive City Plan of Newark.

1. Scope of the City Plan
2. Background and Character of the City
3. Past, Present and Future Population
4. Housing Conditions and Policy
5. Land Use
6. Major Street Plan
7. Seaport and Airport Development
8. Rail and Truck Transportation
9. Zoning
10. Local Transportation
11. Parks, Playgrounds, Recreational Facilities, and Public Schools
12. Public Buildings and the City's Appearance
13. Capital Expenditures Program and Administrative Policy and Practice.

ADDITIONAL REPORTS

A number of special reports of major importance were also made by the Board during the three year period. These were:

1. A Post-War Construction Program
2. Plans for Extension of, and Enlarged Approaches, to the New Passaic River Bridge
3. A Proposed Large-Scale Re-Development Project (First Ward)
4. A Proposed Large-Scale Re-Development Project (Third Ward)
5. Proposed Military Park Garage.

Prior to formation of the Citizen's Advisory Committee in 1945, the Preliminary Reports

were studied and reviewed by a committee of the Planning Board after which they were approved and transmitted to the Board of City Commissioners.

Early in 1945, Mayor Vincent J. Murphy, acting in accordance with the State Planning Act, appointed a Citizens' Advisory Committee of approximately 180 members, some of whom resided in Newark and some who had their business here and their residence elsewhere. This Committee was charged with the responsibility of assisting the Planning Board in preparing the plan and to give public support to its proposals.

The Advisory Committee was divided in-

to a number of Sub-Committees corresponding to the major phases of the plan. Since its creation, the Sub-Committees have been extremely active in reviewing the various preliminary reports prior to their approval by the Planning Board. Their assistance has been, and continues to be, extremely valuable.

This report is a condensation of the separate reports listed previously, and is the Official Comprehensive or Master City Plan of Newark. It was adopted on July 10th, 1947 after hearings by the Planning Board, and will constitute a guide in the future development of the City.

INTRODUCTION

The Newark Central Planning Board has two primary functions to perform under the Ordinance creating the Board and the State Law covering its powers and duties. These are:—

First: To make and adopt a Comprehensive City Plan for the City of Newark.

Second: Within the framework of the Plan to prepare a program for postwar public improvements.

The main objectives to be achieved by Newark Comprehensive City Plan may be summarized as follows:

1. A well balanced, unified development of the entire City.

~~(Slums, blighted districts, and excessive decentralization of population and industry are brought about by unbalanced design of the City).~~

2. Sound and stable property values in all parts of the City.

~~(Excessively high taxes and depreciation of individual property values are the inevitable result of unwarranted speculative distortions in building development and real estate practice).~~

3. Protecting of existing areas of owner-occupied dwellings.

~~(Individual home ownership is the best guarantee of good citizenship. It should be one of the best permanent sources of revenue with which to operate the City).~~

4. Good environment for rental housing areas.

~~(This is one of the most important problems facing Newark. The Federally subsidized projects for low income groups solve only a very small part of the problem. Large scale privately financed rental projects are needed to replace sizeable areas of inadequate and obsolete accommodations).~~

5. Relief of traffic congestion and establishment of improved terminal facilities for parked automobiles.

~~(Proper design of the street system is needed to facilitate traffic movements in and out of the business center and between objectives in the Newark area. Conveniently located off-street parking facilities must be provided within the central business area).~~

6. Good mass transportation facilities.

~~(A well designed street system is necessary for expeditious local transportation).~~

7. Adequate public recreational areas.

~~(All residential areas of the City should be provided with easily accessible playgrounds, playfields, and neighborhood parks).~~

8. Adequate public health facilities.

~~(Public hospitals, health centers, and the like, are among the important improvements which should be considered in the City Plan).~~

9. Adequate educational facilities.

(All parts of the City should be provided with modernized school buildings on ample sites).

10. Improved facilities for industrial development.

(Newark should retain its dominant place in the industrial field by making it attractive for existing industries to re-

main and for new industries to come to the City).

11. Enhancement of the City's appearance.

(Beauty is the adaptation of form to function. It can be accomplished by giving careful attention to the design of city streets and public open spaces and by the judicious control of such private developments as detract from the appearance of such streets and public open spaces).

CHARACTER AND BACKGROUND

Great cities do not develop by chance. Newark has attained its present prominent place in the nation because it has enjoyed certain fundamental advantages of location. These advantages include proximity to markets and labor supply and exceptional facilities for all types of transportation, including rail, water, air, and highway. As the community grew from its early beginnings, its form and character have been influenced by many economic, social, and historic factors. Today, Newark is a metropolis in itself as well as a vital part of the vast New York Metropolitan Region.

Any sound improvement program for the City must take cognizance not only of the requirements of its citizens for a satisfactory standard of civic life, but also of the financial ability of the community to meet past obligations and to incur new debts. The scale and extent of these physical needs are conditioned not only by the City's general growth but by the cultural interests and social relationship of its inhabitants as well, and these factors, in turn, are dependent in a large degree on the economic welfare of the entire community. The extent to which Newark will be able to finance a program of improvements is ultimately measured by the aggregate income of its citizens.

Economic Background

Newark, in comparison to many other American cities, has evolved more slowly from its beginnings as a small village to its present metropolitan status. Its growth, however, has paralleled the other cities since the turn of the century. Because of the rapid change of the United States from an agricultural to an industrial nation, the development of cities in our country has been at a sustained faster growth than in any other period of known history. During this rapid change, many forces have acted to direct the growth and mold the pattern of the city. We must have some understanding of these forces, of their role in the past growth of the city, and of their influence on future

growth before Newark can be planned most satisfactorily and effectively.

There are three major reasons for large cities. First, they develop at places where there is a break in transportation, such as coastal towns where material is unloaded from ships and then loaded on trains. New York City and New Orleans are examples of such cities. The second reason is manufacturing. Pittsburgh and Birmingham are examples of cities resulting from this cause. The third reason is a large populous and wealthy region which the city serves as a trade center. Dallas, Texas, is an example of such a city. Newark's reason for attaining its present size is a combination of the three cited above.

The major part of the city's population makes its living in various ways which can be classified generally as industry, wholesale and retail trade, services, and transportation. The amount and character of these types of employment will depend for the most part upon three factors: (1) Transportation; (2) Population and wealth of the trade territory; and (3) Location and use of raw materials. Over a period of time, national trends such as wars and changing economic conditions affect the relative importance of these three factors. Improved techniques and new ideas bring about new products and new uses of materials. The people of the city have a large influence on modifying the effect of these elements through their intelligent leadership, organization, and promotion. They can turn new trends to the advantages of the city.

The economic future of Newark is largely dependent upon maintaining and improving the industrial structure of the city. Continued downward revision of assessments and tax rates will be helpful in accomplishing this result. Relief of congestion and reduction of transportation costs is an important consideration. Improving housing conditions for industrial workers is most imperative and should be carried out by means of large scale re-building programs.

A secondary but highly important basic source of employment is furnished in wholesale and retail trade. There are many accomplishments which, if carried out, will stimulate this activity. A few of the most important ones which lay within the province of the City might be mentioned: the improvement of vehicular access to the downtown area; provision of adequate parking terminals convenient to the shopping center; enhancement of the general appearance of the business sections, and improvement of commuting facilities from the outlying suburban communities.

Municipal Finance

While the basic employment in industry and in wholesale and retail trade accounts for the present size of Newark, and while the secondary source of employment such as personal and professional services and the like would not exist without the basic employment, neither could they exist without the physical city. The city is the organization of structures, utilities, and forms of services both public and private that enables the carrying on of these fundamental pursuits. All the workers must have a place to live; consequently, this means there must be many residential neighborhoods. There must be streets so that workers can commute to and from their jobs. There must be sewers, a water supply, schools, parks, and playgrounds. Fire and police protection is essential, as well as a system for disposing of waste material. Obviously, a city that does not provide these facilities efficiently and economically and of good standard cannot be a satisfying place in which to carry on basic occupations such as trade and industry. If major deficiencies in one or more of these respects should appear, the basic enterprise would soon go elsewhere, and the economic strength of the city would be impaired and its continuance threatened. Conversely, the better the standards at reasonable cost, the greater will be the invitation

to new enterprises and for the continuation and improvement of existing enterprises.

Continued reduction of Newark's bonded debt is essential in order to make it possible to finance a future program of public improvements.

A careful survey of possible sources of revenue to augment funds derived from taxation of real and personal property should be instituted.

Long range physical planning should be coordinated with long range financial planning. It would be useless to promulgate a program of public works if carrying out such a program is beyond the financial capacity of the City.

The downward trend of assessed valuation of real estate must be arrested by undertaking privately financed large scale rebuilding projects in the deteriorated areas of Newark.

Social Background

Cities are built for and by the people. They are places where many persons have banded together in relatively close proximity to one another for the purpose of working, playing, and doing all the other things that go to make for their happy existence. Following is a summary of a few significant facts having a bearing on the subject:

In the decade from 1930 to 1940, the population of Newark decreased. One of the objectives of the City Plan is to suggest corrective measures that will arrest this decline.

Newark has a relatively high proportion of foreign born white and negro population. This presents problems in connection with housing, relief, and social services.

In Newark, like other cities, there is a trend towards a larger proportion of the population

in the older age group. This is significant in the planning of schools, playgrounds, hospitals, and other facilities.

An exceptionally large proportion of the population of the City lives in multiple dwellings with a very small percentage living in single family dwellings. This characteristic of living conditions is significant in the planning of the City since it makes a dense population frequently accompanied by slum conditions. It is also an important consideration in zoning.

Newark has a high percentage of housing in bad condition and a comparatively high percentage of houses built before 1900. There is also a comparatively high percentage of over-crowding.

Newark has a high percentage of rented dwellings with 78.3 percent of its dwelling tenant-occupied. Of the owner-occupied homes, Newark has a greater proportion in the medium price class. Of the rented dwellings, Newark has the greater proportion in the medium price rental group.

Newark has a high percentage per capita value of public improvement which include such things as schools, libraries, sanitation systems, parks, fire equipment, etc.

The City ranks low in the amount of park acreage. It has only one acre for each 513 persons. The minimum accepted standard is one acre per 100 persons.

POPULATION - PAST, PRESENT AND FUTURE

Obviously, it is not feasible to plan the location of schools, parks, housing developments, streets, and other public facilities unless some estimate or assumption is made of how many people will reside in a given area at a given future time.

Factual information on the past and present distribution and density of population in Newark must be collected and analyzed prior to formulating the Comprehensive City Plan. Analysis of past trends of growth gives a basis for estimating future population.

Past Growth of Newark

Newark has followed the characteristic pattern of growth usually found in all large cities. As population increased it spread throughout the City and into the suburbs. Prior to 1920, the rate of urban growth was rapid, but during the past twenty-five years the rate decreased markedly, and many cities, including Newark, actually lost population between 1930 and 1940, (See Plate No. 1 and Table 1). The numerical increase in population was accompanied by an internal shifting of population within the City itself which resulted in a loss of population in several areas, particularly those in or near the central part of the City. Persons moving out of the older areas were not replaced by new residents.

This shifting of population, (as shown on Plate 2), has resulted in the abandonment or decreased uses of buildings and certain public services long before they have served their normal period of usefulness and causes a duplication of buildings and facilities in the newer areas. This is a wasteful process. It has been one of the principal causes of the financial difficulties confronting the majority of American Cities. The end is not in sight. Our cities face still greater difficulties in this respect.

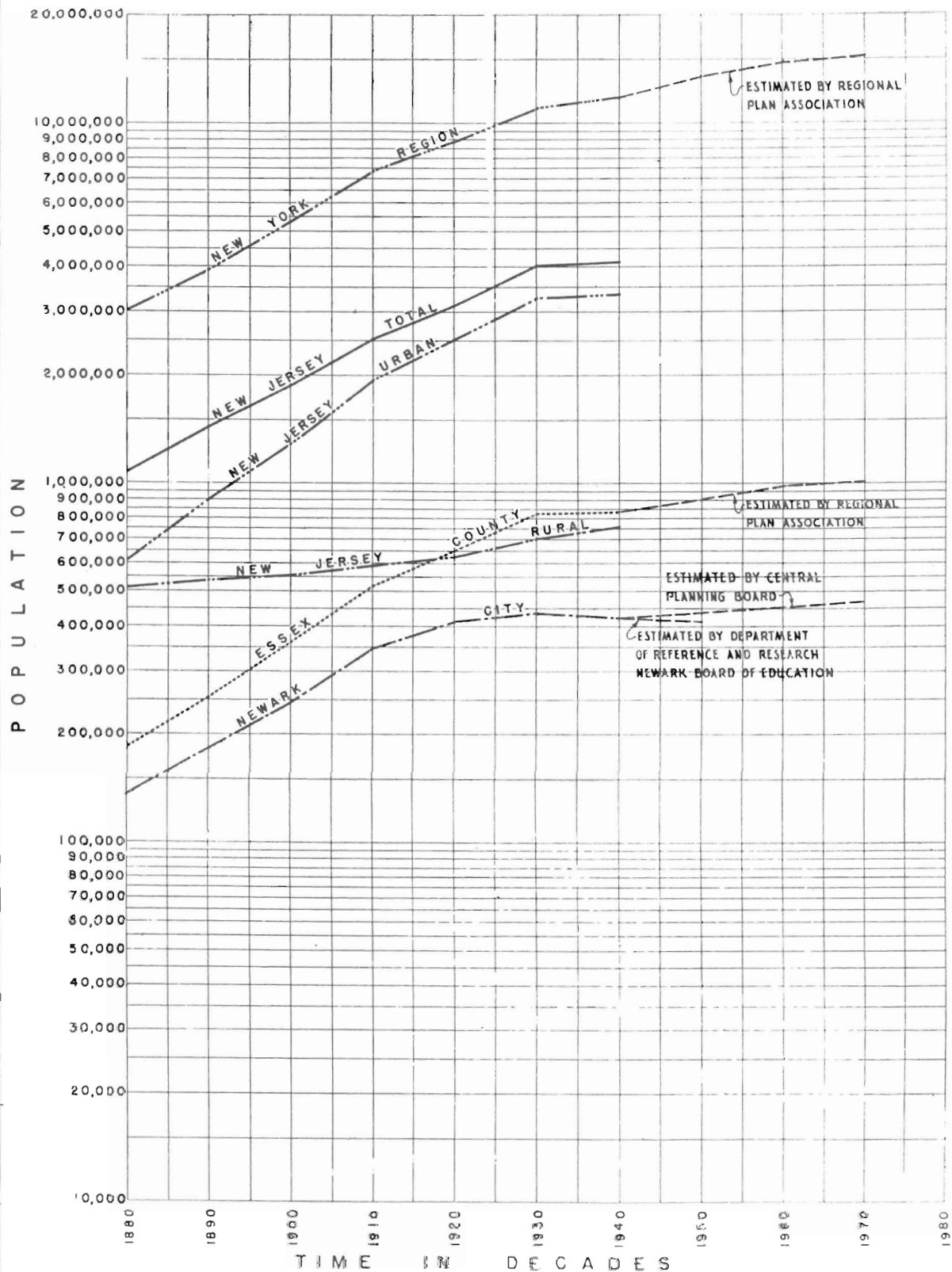
The area within the corporate limits of Newark is relatively small and cannot be

expanded without absorbing other municipalities which lie immediately adjacent. The scarcity of buildable land has resulted in a more intense development in Newark than is ordinarily found in cities of comparable size, and today there is little vacant land available for new residential use. As a result of this situation, any future population growth within the limits of Newark can be accommodated only by increasing the present density of built-up areas. This could be done with benefit to the City if undertaken in accordance with a plan that would insure improved standards of light and air and the other amenities that constitute a desirable residential environment. It would also have the added benefit of replacing present obsolete low standard housing.

The Problems Which Confront Newark

Property values are on the decline in Newark and the loss of such values cannot be offset by increased ratables in suburban areas as they become built-up, even if annexation took place. As taxable values decline, the loss of revenue resulting therefrom must be made up either by increasing the tax rate or by developing new sources of revenue. It is evident that the only way out of the dilemma in which Newark finds itself, is to take the steps necessary to arrest the downward spiral of values and to gradually restore these values by the execution of a large scale comprehensive program of rehabilitation and rebuilding.

No one can predict with certainty whether the population attracted here by war industries will remain permanently. Transportation difficulties arising during the war over post-war material and labor shortages have slowed down the suburban exodus, at least temporarily, but there is no reason to believe that it will not be resumed later, unless steps are taken to check it.



POPULATION GROWTH NEWARK AND OTHER GOVERNMENTAL UNITS

CENTRAL PLANNING BOARD OF
NEWARK, NEW JERSEY

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS

TABLE 1

*Past Growth of Population in the United States,
New Jersey, Newark and Environs*

	UNITED STATES	NEW JERSEY	NEW JERSEY URBAN	NEW YORK REGION	ESSEX COUNTY	NEWARK
1900	Amount Increase % Increase	1,883,669 438,736 30.4	1,329,162 424,619 46.9	5,384,734 1,418,356 35.7	359,100 103,068 40.2	246,070 64,240 35.3
1910	Amount Increase % Increase	2,537,167 653,498 34.7	1,936,612 609,450 45.9	7,466,942 2,082,208 38.7	512,886 153,796 30.0	347,469 101,399 41.2
1920	Amount Increase % Increase	3,155,900 618,733 24.4	2,522,435 583,823 30.1	8,979,055 1,512,113 20.2	652,089 139,203 27.2	414,524 67,055 19.3
1930	Amount Increase % Increase	4,041,334 885,434 28.1	3,339,244 816,809 32.4	11,458,004 2,478,949 27.6	833,513 181,424 27.4	442,337 23,899 5.7
1940	Amount Increase % Increase	4,160,165 118,831 2.9	3,394,773 55,529 1.7	12,308,350 850,346 7.0	837,340 3,827 0.5	429,760 —12,577 —2.8

U. S. Census Bureau.

Rapid population increase is no longer considered a reliable measure of progress in a municipality. Quite often it is a liability rather than an asset — as those communities which have been overwhelmed by an overnight influx of war workers well know. It is doubtful if Newark will become much larger than it is today. This should not affect the future prosperity of the City, provided steps are taken to improve present living conditions and the general character and tone of the City.

Since Newark may not be able to expand its physical area, its future economic and social welfare depends upon the degree of conservation of what is good, and replacement of that which is bad. It is not confronted with the financial responsibility of providing public services throughout an expanding area of urbanization. Most of the services needed for present and future population are already installed and have been paid for in full, or in part. Replacement and rearrangement of facilities as these become obsolete will constitute the principal future public works program rather than any extensions into newly developing territory. A sound and stable city may be fully as wholesome and desirable as a growing city.

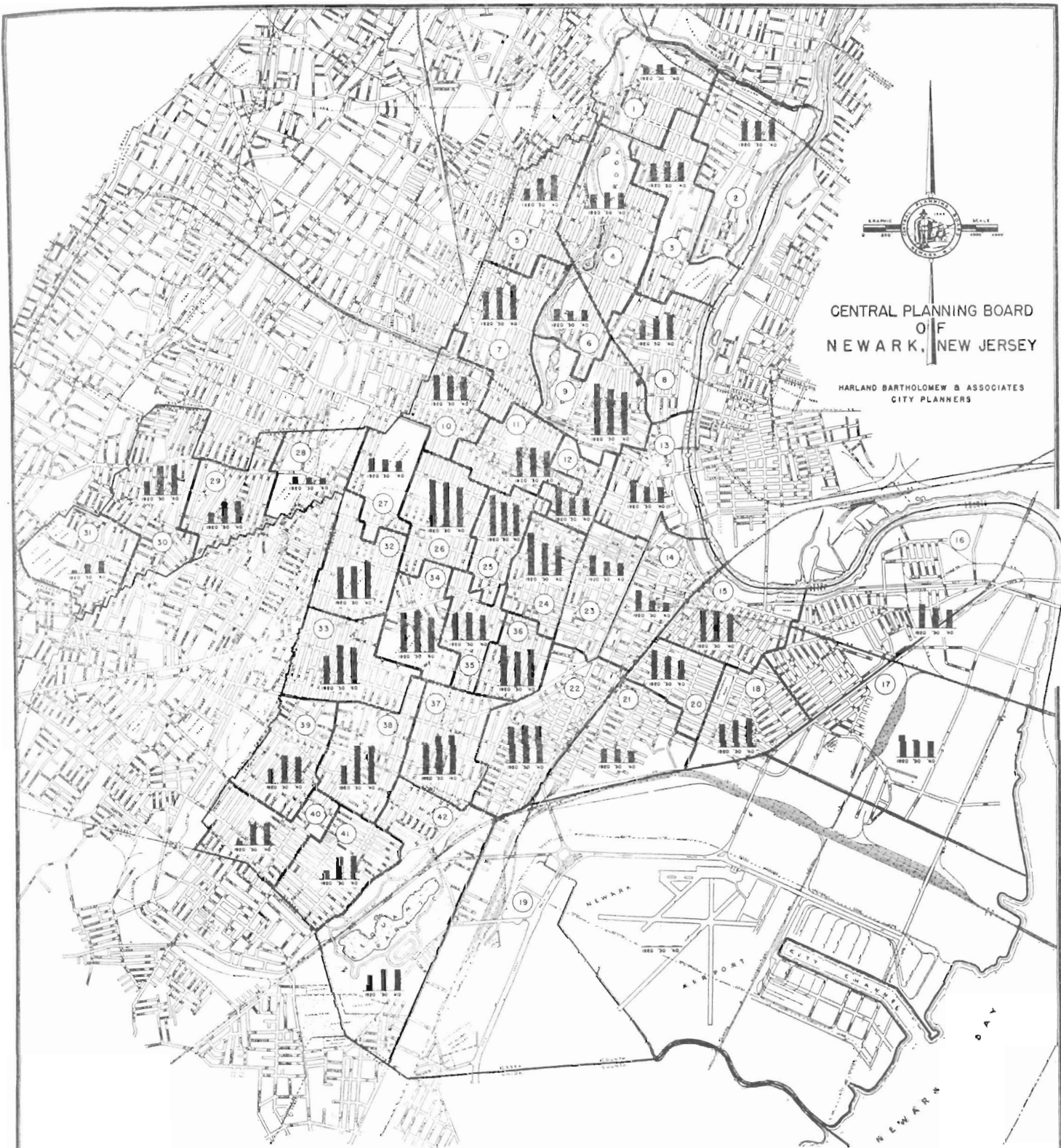
The object of re-building the obsolete parts of the City is to re-create a residential environment which will afford better living conditions for residents of Newark. A resident is a much better citizen when he and his family can live in a decent, comfortable home in a quiet neighborhood, and enjoy the community life afforded by good schools and adequate playgrounds and parks. Following is a summary of some significant facts relating to Newark's population characteristics:-

1. Newark faces a serious population loss unless present trends are arrested. Whereas there was a 6.7 percent increase between 1920 and 1930, there was a loss of 2.8 percent between 1930 and 1940. There has been a temporary increase in population since

1940 amounting to approximately 20,000 war workers, according to a survey conducted by the Newark Housing Authority. How many remain today is a moot question. Disregarding these recent developments, if the trends established during the past three decades were to continue for the next thirty years, Newark would have a total population of only 380,000 in 1950, 342,000 in 1960, and 308,000 in 1970. The execution of a comprehensive program of rehabilitation and re-building in Newark is the surest way to reverse this downward trend.

2. As a basis for planning studies, the population of Newark in 1970 is estimated at 472,000 representing an increase of approximately 42,000 over the 1940 figures. In arriving at this figure, it was assumed that most of the population increase since 1940 occasioned by in-migrant war workers would be retained, and that new population would be brought into the City by increased industrial activity and improvements made in the residential districts. This may be an optimistic forecast, but it represents a desirable goal that can be achieved by coordinated community endeavor. (Table 2 shows the basis on which the estimate of future population was made).

3. The rate of increase in population in the metropolitan area surrounding Newark has decreased markedly since 1930. (See table 3). In Essex County, the rate of increase between 1930 and 1940 was .5 percent in contrast to 27.9 percent in the previous decade. The New York Region, as defined by the Regional Plan Association, increased only 7 percent compared to 28 percent during the same periods. The Regional Plan Association estimates that Essex County will have a population of 901,000 in 1950, 982,000 in 1960, and 1,025,000 in 1970. Its present population (1940) is 837,340. Hudson County is expected to decline to 610,000 in 1970; a decrease of 92,000. If these forecasts prove to be correct, Newark can look forward to a steadily expanding retail and business market as Essex County is the principal source



CENTRAL PLANNING BOARD
OF
NEWARK, NEW JERSEY

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS

CITY OF NEWARK, NEW JERSEY POPULATION TRENDS BY STATISTICAL AREAS 1920 - 1930 - 1940

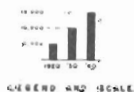


TABLE 2

Trends of Past Growth and Estimated Future Population

	Total Urban Population in the United States	Newark Population	Per Cent Newark's Population of Total Urban Population in the United States
1900	30,380,000	246,070	0.82
1910	42,166,000	347,469	0.83
1920	54,506,000	414,524	0.76
1930	68,955,000	442,337	0.64
1940	74,423,000	429,760	0.58

Indicated or Estimated Average Trend .555 per cent

	Urban Population Increase in the United States	Increase in Newark Population	Per Cent Newark's Increase of Total Urban Population in the United States
1900-1910	11,786,000	101,399	0.86
1910-1920	12,139,000	67,055	0.55
1920-1930	14,650,000	23,899	0.16
1930-1940	5,469,000	— 12,577	—0.23
Average ratio of increase 0.31			

	Estimated Future Urban Population in the United States	Newark at .555 per cent of total	Estimated Future Population of Newark
1950	79,634,000	450,000	450,000
1960	82,865,000	460,000	460,000
1970	85,200,000	472,000	472,000

	Estimated Future Increase of the Urban Population in the United States	1900-1940 Per Cent of Increase	Normal Increase in Newark Population	Estimated Future Population of Newark
472,000				
1950	4,810,000	0.31	14,900	444,660
1960	3,631,000	0.31	11,250	455,910
1970	2,363,000	0.31	7,180	463,090

TABLE 3

Population Trends — Governmental Units — Essex County

Community	1930 Population	1940 Population	Change
Bloomfield	38,077	41,623	+ 3,546
Millburn	8,602	11,652	+ 3,050
Livingston	3,476	5,972	+ 2,496
Maplewood	21,321	23,139	+ 1,818
Verona	7,161	8,957	+ 1,796
Nutley	20,572	21,954	+ 1,382
West Orange	24,327	25,662	+ 1,335
Belleville	26,974	28,167	+ 1,193
East Orange	68,020	68,945	+ 925
West Caldwell	2,911	3,458	+ 547
Roseland	1,058	1,556	+ 498
Cedar Grove	4,793	5,208	+ 415
Township of Caldwell	989	1,392	+ 403
Essex Fells	1,115	1,466	+ 351
Orange	35,399	35,717	+ 318
South Orange	13,630	13,742	+ 112
North Caldwell	1,492	1,572	+ 80
NEWARK	442,337	429,760	—12,577
Montclair	42,017	39,807	— 2,210
Irvington	56,733	55,328	— 1,405
Borough of Caldwell	5,144	4,932	— 212
Glen Ridge	7,365	7,331	— 34

From U. S. Census Reports—

of customers for Newark establishments in the metropolitan area surrounding the City.

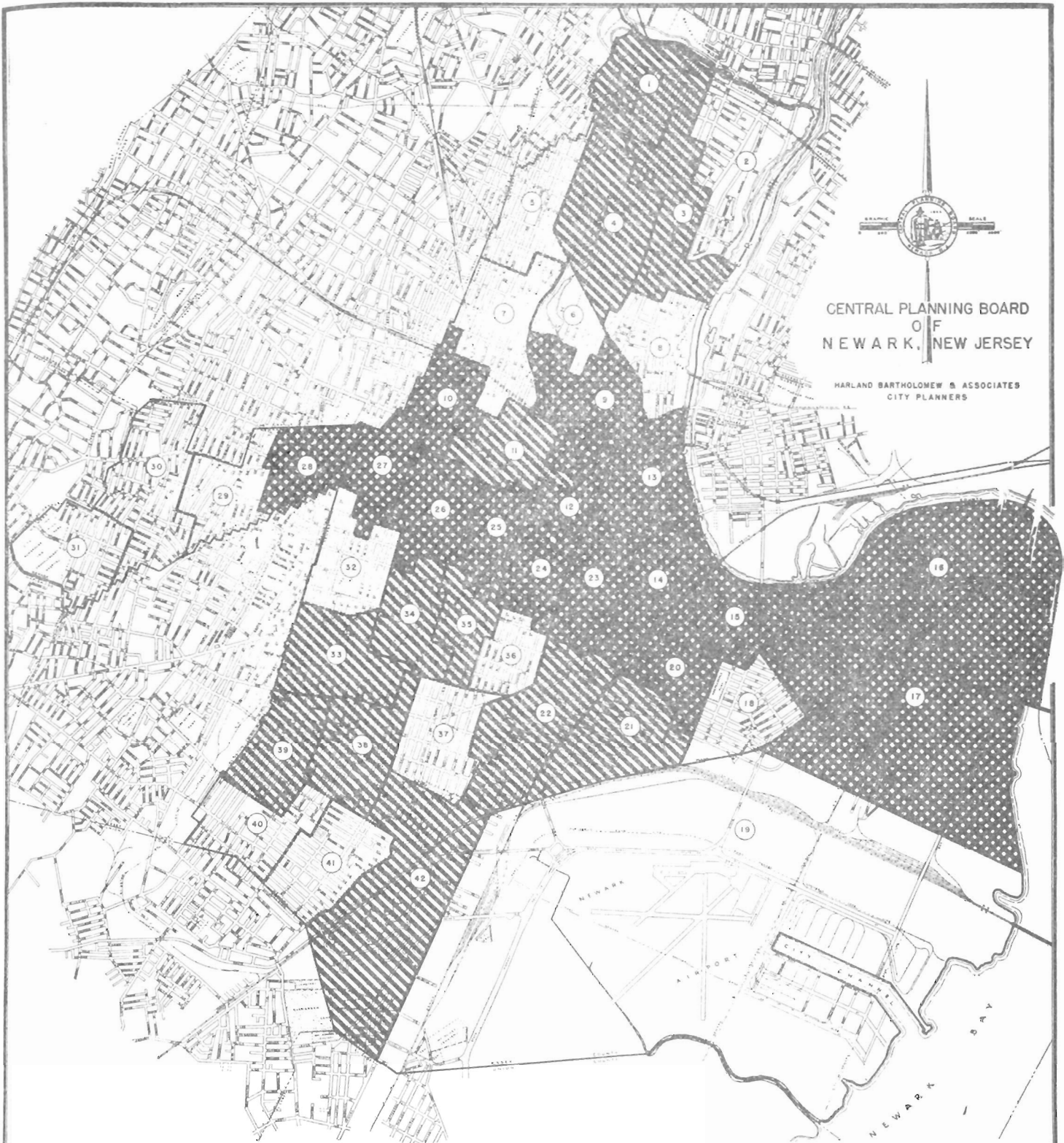
4. There has been a pronounced shifting of population within the City since 1920. 50 percent of the City's area excluding the Meadowlands, has lost population. (See Plate No. 3). These losses have aggregated more than 52,000 since 1920. The remainder of the area has gained population or has remained stationary. The drifting of population away from such a large part of the City's area has serious implications. Positive measures must be taken if this drift is to be arrested.

5. There has been a slow but steady change in the racial characteristics of Newark's population. The percentage of foreign-born white has declined from 31.8 in 1920 to 21.1 in 1930 to 10.6 in 1940. The percentage of Negroes has increased from 2.7 in 1910 to 10.8 in 1940. Numerically this is an increase from 9,475 to 45,760 in thirty years. The Newark Housing Authority estimates that since 1940, 4,000 additional Negroes have migrated to Newark. This is 20 percent of the total in-migrants since 1940.

6. The population of Newark is growing

older. In 1940, 21.1 percent was in the 0-14 year age group compared to 29.5 percent in 1910. 26.5 per cent of the population in 1940 was 45 years and older compared to 17.5 percent in 1910. Changing age distribution has many social implications. There will not be as many school children in the future, but the age classes most heavily represented in certain types of institutions will greatly increase. There are many problems of employment, old age security and the like, which will become more acute as the population grows older. The birth rate has increased slightly in the past several years, but there is no certainty of a sustained increase.

7. While certain areas in the City have excessive densities of population, the internal migrations within the City have tended to level off and equalize these densities, and the situation as regards overcrowding is better now than in former years. Whereas in 1920 there were 1248.4 acres, or 8.25 percent of the City's area, having a gross population density in excess of 80 persons per acre or 50,000 persons per square mile, in 1940 there were only 269.4 acres, or 1.78 percent of the City's area, which had a similar concentration of population.



CENTRAL PLANNING BOARD
OF
NEWARK, NEW JERSEY

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS

CITY OF NEWARK, NEW JERSEY AREAS THAT HAVE LOST POPULATION 1930-1940, 1920-1940

LEGEND



LOST POPULATION
1930-1940



LOST POPULATION
1920-1940

LAND USE AND ZONING

Newark's land use pattern has become firmly established. The chaotic conditions that now exist in Newark are the inevitable results of lack of past planning. Today, industrial, commercial, and residential uses of land within the City are so extensively intermingled that the highest and best use and future development of each is seriously impaired.

One of the most important means for implementing the comprehensive land use program is by means of an up-to-date zoning ordinance, drawn in scale with present and future population and economic requirements.

Newark has had the benefit of a zoning ordinance since 1920. As the City was one of the first in this country to undertake zoning, the original ordinance was somewhat of a pioneering effort. The framers of the original ordinance did not have the benefit of the experience, court decisions, and techniques available today. Also, the ordinance was not made a part of, or with the background of, a comprehensive city plan. Because of these conditions and the fact that Newark was a fully matured city in 1920, zoning has not been entirely successful in bringing about a desirable land use pattern. The ordinance also is somewhat out of scale with the present city needs.

The Land Use Survey

In order to determine the present use of the 24 square miles of property within the corporate limits of Newark, it was necessary to make a field investigation of each of approximately 55,000 parcels. Information secured by the field check included the property use, the number of dwelling units in each residential building, the height of each building, and the number of establishments and front feet of each business or commercial use.

The first step in the survey consisted of placing in color on a set of city maps all information available from insurance atlases and other sources. The 62 sheets comprising this set of maps were then taken into the field, and carefully checked by field investigators who were provided by the Health, Building, and Revenue and Finance Departments.

For the permanent recording of the data secured by the field survey, another set of maps was prepared consisting of 14 sheets at a scale of 400 feet to the inch. After showing all property lines on these maps, the land use data was entered in color, thus providing a graphic presentation of the land use information. From this set of maps, detailed computations were made showing the total amount of area occupied by each type of use.

For the purpose of the survey, the following use classifications were adopted:

1. Residential:
 - a) Single-Family Dwelling
 - b) Two-Family Dwelling
 - c) Multiple-Dwelling (including buildings with three or more families and rooming houses)
2. Commercial
3. Industrial
 - a) Light Industry
 - b) Heavy Industry
 - c) Railroads
4. Public and Semi-Public (Schools, churches, libraries, clubs, etc.)
5. Parks and Playgrounds
6. Vacant Land
7. Streets and Alleys

General Land Use Pattern

An examination of the land use maps discloses the extent to which the intermingling of all types of uses has progressed in Newark. Particularly in the older and more central sections are found almost hopeless mixtures of residential, commercial, and industrial uses. In the more recently developed parts of the City, including Forest Hill, Vailsburg, and parts of Clinton Hill and Weequahic, the development is more homogeneous in character, although even in these home neighborhoods there are serious intrusions of non-residential uses.

Newark is one of the most densely populated cities of the United States, but in spite of this it contains over 2,700 acres of vacant land comprising 18 percent of the total city area. Much of this land, however, is in the Meadows and is unsuitable for residential use. There are numerous vacant properties in the remainder of the City, but these are, with few exceptions, small parcels and widely scattered. Some land is vacant because it has been improperly zoned for commercial use, and has a valuation which is too high to make its use for residential purposes feasible. Other vacant land has been created by the removal of obsolete buildings.

In the developed part of the City, the lots are relatively small with buildings occupying most of the plot leaving but little open space around the structure. Thus, the density of population in most of the City is extremely high. There is a wide scattering of two-family and multiple dwellings. In the older, more central, part of the city, multiple dwellings predominate, but throughout this area there is a scattering of single family, commercial, and industrial uses. While rooming houses are found in many parts of the city, the greatest concentrations of them are in the North Broad Street section, mainly between Clay Street and the Mt. Pleasant Cemetery, and on the adjoining streets; and in the area in the vicinity of Lincoln Park. There are many commercial and industrial uses

throughout areas predominantly residential in character. Commercial developments are found on nearly all of the main thoroughfares, although individual small stores are widely scattered.

Newark contains many factories of all sizes. While most of the large industrial plants are located near the railroad lines along the Passaic River and adjacent to the Bay, there are a great number of smaller factories and plants scattered throughout the City. Many large industrial plants and factories have been located in the Meadows, but there still remains large undeveloped tracts in that area well suited for industrial purposes.

Areas Occupied by Various Uses

Table 4 shows the area occupied by the various types of land uses in Newark. For comparative purposes, similar data is presented for St. Louis, Louisville, and Minneapolis.

Unlike most cities, Newark is divided into two separate areas. These are the low-lying lands comprising the Meadowlands, and the higher ground on which the principal residential and commercial development has taken place. The Meadowlands present both a problem and an opportunity. Comprising 4,887 acres, or about 30 percent of the total City area, it contains 1,942.8 acres of vacant land, out of a total of 2,723.2 acres for the entire city. Almost one-half of the City's industry is located in this area as well as the Newark Airport and Seaport.

The reservoir of vacant land remaining in the Meadowlands is a valuable asset to the community as the remainder of the City is almost completely built-up. The 780 acres of vacant land remaining outside the Meadowlands consist largely of small widely scattered tracts spread throughout the community; none of which are large enough to be of much value for other than small building developments.

TABLE 4

Existing Land Uses

	Area in Acres	Area in Acres in Meadows	Percent of Total City Area				Percent of Total Developed Area				
			% in Newark	% in St. Louis	% in Louis-ville	% in Minn.	% in Newark	% in St. Louis	% in Louis-ville	% in Minn.	% in New-ark less Meadows
Single — Family Dwelling	1,044.5	3.6	6.9	17.1	28.5	34.1	8.4	20.4	36.6	42.1	11.1
Two — Family Dwelling	825	.2	5.5	6.5	2.1	1.9	5.7	7.2	2.7	2.4	8.7
Multiple — Dwelling	1,033	—	6.9	6.1	1.8	0.8	8.4	7.3	2.3	1.0	11.0
Total Dwellings	2,902.5	3.8	19.3	29.7	32.4	36.8	23.5	34.9	41.6	45.5	30.8
Commerce	791	6.0	5.2	4.4	2.2	1.6	6.4	5.3	2.8	2.0	8.3
Light Industry	356	2.0	2.4	3.5	4.6	2.5	2.9	4.2	5.9	—	3.7
Heavy Industry	1,702.5	829.5	11.3	4.4	2.0	—	13.7	5.3	2.6	11.5	9.3
Railroads	771	255.5	5.1	4.3	2.1	6.8	6.2	5.2	2.7	—	5.5
Public & Semi-Public	2,209	1,574.4	14.6	8.7	7.2	7.5	17.8	10.5	9.2	9.2	6.7
Parks & Playgrounds	790	—	5.2	6.8	7.8	6.8	6.4	8.1	10.0	8.4	8.3
Streets & Alleys	2,858.8	273.0	18.9	22.2	19.6	18.9	23.1	26.5	25.2	23.4	27.4
Total Developed Area	12,380.8		82.0	84.0	77.9	80.9	—	—	—	—	—
Vacant Land	2,723.2	1,942.8	18.0	16.0	22.1	19.1	—	—	—	—	—
Water Area	1,331.2										
Total City Area	16,435.2	4,887.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 5
Existing Commercial Development

1.	Area Occupied for Commercial Use	791 Acres
	Percent of Total Developed Area	6.4
2.	Number of Units	12,548
3.	Lineal Feet of Frontage	366,909
4.	Average Frontage per Store	29.2 Ft.
5.	Lineal Feet Commercial Frontage in Central Business District	40,875
	Frontage in Central Business District per 100 persons	9.5
6.	Lineal Feet Commercial Frontage Outside Central Business District	326,034
	Frontage Outside Central Business District per 100 persons	76
7.	Average Commercial Frontage of Entire City per 100 persons	85.5
8.	Average Commercial Area per 100 persons Entire City184 Acre
9.	Average Number Stores per 100 persons Entire City	2.92

Whereas future improvements in the developed section of Newark must consist principally of re-building and rearrangement of present facilities, there is ample room in the Meadowlands for substantial new industrial growth. The future welfare of Newark depends largely on the manner in which this development is planned and carried out.

In order to present a more accurate comparison between Newark and the other cities for which data is presented in Table 4, the land use statistics have been prepared for the entire city and for the city exclusive of the meadowland areas.

Commerce

Table 5 gives detailed data concerning the existing commercial development in Newark. 791 acres, or 6.4 percent, of the total developed area of the City is used for commercial purposes which is very much higher than that in the other communities compared. This high proportion of commercial area is partly accounted for by the fact that Newark is the shopping center for a large suburban area.

The number of lineal front feet of commercial use is another means of evaluating commercial development. In Newark, there is a total of 366,909 feet of business frontage comprising 12,548 ground floor store units. This is an average of 29.2 feet per store. Of this frontage, only 40,875 lineal feet, or 11.1 percent, is located in the central business district, while 326,034 lineal feet, or 88.9 percent, is located in other parts of the City.

The unit usually used for comparing different cities is the number of lineal front feet per 100 persons. In Newark, there is an average of 85.5 feet per 100 persons for the entire city. This is materially higher than in most cities where comparable figures are available. Within the central business district, there are 9.5 feet per 100 persons of total population while in the areas beyond the central business district there is an average com-

mercial frontage of 76 feet per 100 persons of total population.

Analysis of the present zoning ordinance shows that there is an excessive amount of commercial zoning in Newark. Whereas there are 853,770 lineal feet of commercial zoning in the City, only 366,909 feet are so used, and much of this development is in light and heavy industrial districts. Any long-range land use policy must provide a better balance of actual land use and land zoned for such uses. There is a direct relationship between the amount of business that can be supported by a given population, and, regardless of how much commercial zoning is provided, it can never be absorbed unless there is sufficient population to support additional commercial enterprises. As a result of such over-zoning for business, inflated valuations are placed on property in anticipation of a use that can never come about, and development of any kind is arrested.

There are many small commercial establishments scattered throughout Newark's residential sections. These uses were established prior to zoning, and are non-conforming in respect to present regulations. Their eventual elimination will greatly aid in the rehabilitation of the older residential districts. Additional state legislation is needed that would permit zoning regulations to provide for the elimination of such uses after a reasonable amortization period.

Industry

Industrial uses are divided into two classes, i.e., light and heavy. Light industries are those which are not objectionable to adjacent property, while heavy industries are those which emit smoke, dust, noise, or odor, and thus are not compatible with surrounding business or residential uses.

In Newark, 16.6 percent of the total developed area is used for industrial purposes,

of which 2.9 percent is light and 13.7 percent is heavy. The proportion of land used for industry is somewhat higher in Newark than in the other cities compared. This shows the importance of the City industrially, as both St. Louis and Louisville are noted manufacturing centers.

Much of the industrial development is located along the railroads, the Passaic River, and Newark Bay. There is, however, considerable scattering of smaller industries throughout the City, particularly in the area north of Avon Avenue to the Lackawanna Railroad, and, exclusive of Vailsburg, from the City Limits, east, including the Ironbound Section.

The widespread dispersion of industrial uses throughout the City creates many serious problems. Where these uses exist in stable residential areas, they tend to blight the area, and make it difficult to raise or maintain present residential standards. When located, in a slum district that requires complete re-development, the cost of acquiring the industrial property may block such an improvement, particularly if a new location is not readily available. Many of these establishments antedated the residential development in their vicinity as they originally were established on cheap vacant land. As the neighborhood became built-up, the industries became hemmed in, and when expansion was necessary the cost of acquisition of additional property was very high.

Many of these misplaced industries would be glad to move to locations more convenient to transportation, provided, it would be financially advantageous to do so, and a suitable building would be available.

Consideration should be given to instituting and carrying out a long-range program of relocating as many of these plants as possible in the Port Newark area. This program should be made an integral part of the Port Newark development area.

Future Land Use Requirements

Table 6 presents ratios of existing areas per 100 persons, data as to areas now occupied by various uses, and estimates of the areas to be absorbed by 1970.

It is estimated that by 1970 the population of Newark will be 472,000, an increase of approximately 42,000 over 1940 figures. By assuming that the ratios of land use and population, as they exist at present, will remain approximately constant, it is possible to estimate the amount of land which will be required for these purposes by the future population.

The relatively small expected population increase in Newark will require only a limited amount of land for new residential and commercial expansion. A straight-line projection of ratio of use to population indicates that single-family residences will require 12.6 additional acres; two-family residences 21.8 acres, and multiple dwellings 60.8 acres. There is ample vacant area available to meet these requirements. While it appears that comparatively little **net** residential growth will take place in Newark, this is not alarming in view of the fact that there are unlimited opportunities for rebuilding operations to replace obsolete structures with new and modern housing. From a land use standpoint, the problem is essentially one of re-planning and re-developing the extensive obsolete areas along the lines proposed in the chapter on Housing.

If commercial expansion follows in proportion to the expected population increase, only 7.6 additional acres will be needed. However, the trading area tributary to Newark is expected to show a substantial increase in population, and Newark's commercial properties can expand in proportion if the retail trading centers are made attractive and accessible to suburban shoppers.

The future area that will be absorbed by industry cannot be pre-determined as there are so many variable factors involved. There

TABLE 6

Existing and Probable Future Land Use Requirements

	Existing Acres per 100 persons Newark	Acres per 100 persons St. Louis	Acres per 100 persons Louisville	Acres per 100 persons Minneapolis	Existing Area Acres Newark	Amount Needed for Future Population	Amount to be absorbed (Acres)
Single-Family Dwelling	.24	.83	2.24	2.70	1,044.5	1,057.1	12.6
Two-Family Dwelling	.19	.31	.16	.15	825	846.8	21.8
Multiple Dwelling	.24	.31	.14	.06	1,033	1,093.8	60.8
Total Dwelling Area	.67	1.45	2.54	2.91	2,902.5	2,997.7	95.2
Commerce	.18	.21	.17	.13	791	798.6	7.6
Light Industry	.08	.17	.36	1	356	389.6	33.6
Heavy Industry	.39	.21	.16	.73	1,702.5	1,866.3	163.8
Railroads	.18	.21	.17	1	771	771	—
Public & Semi-Public	.51	.52	.56	.59	2,209	2,425	216
Parks & Playgrounds	.18	.31	.61	.53	790	1,180	390
Streets	.66	1.07	1.54	1.49	2,858.8	2,858.8	—
Total	2.88	4.15	6.11	6.38	12,380.8	13,380.8	906.2
Vacant	.63	.78	1.74	1.42	2,723.2	1,817.0	—

is ample room for industrial expansion in the Meadowland area, which has unsurpassed advantages of transportation, proximity to markets, and labor supply. Here again, a straight line projection of area needed in the future does not portray an accurate picture of industrial possibilities. According to this method of estimating, 33.6 additional acres will be needed for light industrial uses while 163.8 acres will be required by heavy industry. This is only a small percentage of available vacant land in the meadowlands.

For a number of years, there has been a strong tendency to seek locations outside of congested urban centers. It is believed this trend will continue. Newark may suffer from industrial decentralization unless steps are taken to offset its effects by continuing to lower the tax rate, by providing decent housing at moderate rentals for industrial workers, by reducing transportation costs, and by relieving traffic congestion. Future policies in respect to operation of Port Newark and the Newark Airport will also have an important bearing on the industrial future of Newark.

It was assumed that the present area now used for railroads is sufficient to accommodate any future expansion of population. Any new railroad facilities would be in the nature of private sidings to new industrial plants.

The generally accepted desirable ratio for park area is one acre per 100 persons. Even though Newark has several excellent large parks, the ratio falls far below this standard. Since the developed portion of Newark is almost entirely built up and the Meadows are not properly located for park expansion, it will be practically impossible for the City to acquire sufficient land to bring the ratio up to the desirable standard. Taking these factors into account, the ratio of .25 acres per 100 persons has been used as a basis for determining the future land requirements for parks. This means that, in the future, an additional 390 acres of parks and play-

grounds should be acquired. In addition to the park acreage within the corporate limits, Newark's residents benefit from the use of certain County Parks lying outside, but close to, the City.

It was also assumed that the street area of Newark was sufficient to accommodate any additional expansion of population. All of the area of the City which is suitable for residential development is adequately served by streets at the present time. Any new streets that might be required as a result of industrial expansion, or new industrial development in the Meadows, will be more than offset by streets vacated in proposed re-development areas.

It is quite unlikely that public and semi-public uses will require much additional area in the future. The estimated increase of 216 acres probably will be largely absorbed by enlargement of the Airport.

The Proposed Zoning Ordinance

The proposed ordinance provides both revision of the text of the present ordinance and changes in the district map.

The present ordinance provides for seven districts of which three are for some form of residence, two are for business, and two are industrial. The proposed ordinance suggests a total of eleven districts, of which four are for residence, four are for business, and three are for industrial uses.

In making the recommended revisions, consideration has been given both to the character and extent of existing development, and the land use requirements of the City's present and future population. The proposed plan is coordinated with other elements of the Comprehensive City Plan, particularly, those plans having to do with the re-developing and rehabilitating of the slums and blighted areas. All of the proposed changes are designed to bring about a land use pattern more in keeping with present and future conditions.

General Form of Ordinance

The present zoning ordinance sets out the use regulations for each district and the height, bulk, and area requirements are in the form of a schedule to which reference is made in the text of the ordinance at appropriate places. In order to consolidate all of the regulations for each district, the proposed ordinance eliminates the schedule and combines the use, height, and area regulations for each district in the text of the ordinance. Accompanying the ordinance is a table summarizing, for ready reference, the various regulations.

A careful study was made of the definitions and it was deemed advisable to supplement these by additional ones for the purpose of clarity and ease of enforcement.

The general form of the present ordinance is followed in the proposed new law; the regulations for each district being set out and then followed by the general sections having to do with non-conforming uses, additional height and area requirements, the Board of Adjustment, enforcement, amendments, and the like.

Single Family Districts

The present ordinance in its "First Residence District" designates certain areas for single family dwelling purposes. These districts aggregate 636 acres or 5.3 percent of the area of the City, exclusive of vacant land, street and public properties. Actually, there are 1044.5 acres used for single family residence purposes in Newark, the discrepancy being explained by the fact that there are many single family homes in multiple family and in other districts. An examination of the present District Map and Use Map shows there are areas which are now zoned for single family purposes, but which have been developed by other uses, principally, two family. A large area lying on both sides

of South Orange Avenue in Vailsburg is zoned for single family purposes, but its development is predominantly two family and multiple family. A similar area exists in the Weequahic section west of Bergen Street and south of Hawthorne Avenue. This condition also prevails in the northwest part of the City in the area lying between Park Avenue, Second Avenue, and North 10th Street. In these instances, the proposed zoning ordinance changes the classification to a less restricted use.

There are relatively few areas now occupied exclusively by single family homes. The largest of these areas is in Forest Hill lying between Clifton Avenue and Branch Brook Park, Second Avenue and Heller Parkway. Other single family areas now exist in Vailsburg and in Weequahic but they are smaller in area and are somewhat cut up by other uses.

The proposed ordinance increases the single family area to 757.4 acres, but it should be explained that some of this increase is due to the fact that Branch Brook Park and Ivy Hill Park are not zoned and, under the proposed ordinance, they are classified as single family.

The regulations for single family districts are quite similar to those of the present ordinance, although a few changes are suggested. For example, it is recommended that the present minimum height of 2½ stories be eliminated. The proposed ordinance eliminates regulations pertaining to the maximum building area. The regulations regarding front, side, and rear yards are sufficient to insure a reasonable land occupancy.

Front yard requirements are the same as in the present ordinance, but a formula for establishing the depth of such yards in partially built-up blocks is set up. Also, the proposed regulations require that there should be a front yard on each side of a corner lot under certain conditions. Side yard requirements are simplified and are based on a

percentage of the width of the lot rather than the height of the building as to present. Full side yards are required on both sides of a lot. Rear yard regulations are the same as those required under the present ordinance, except that there is a provision that the rear yard need not exceed 50 feet. The present requirement of 2,000 square feet of lot area per family is very low, and it is recommended that this be increased to 4,000 square feet.

Two-Family or Garden Apartment Districts

The present ordinance does not have any districts permitting two family residences, and excluding multiple dwellings. The Second Residence District of the present ordinance permits three family dwellings, boarding houses, and similar uses. While there does not seem to be any pressing need for a district primarily for two-family use, there are certain areas in the City where they predominate. Recognizing this situation, the new ordinance proposes a new district in which two, three, or four-family dwellings and garden apartments would be permitted. No building more than 2½ stories in height would be permitted. A garden apartment is defined, and it is hoped that by the suggested changes the construction of this type of housing will be encouraged in certain parts of the City. There are several areas proposed to be classified in this manner. One large area lies in Vailsburg on both sides of South Orange Avenue where the present zoning is single family. Another smaller area in Vailsburg lies on the south side of South Orange Avenue at the city limits. Other areas of this nature are in Weequahic south of Hawthorne Avenue lying between Bergen Street and Osborne Terrace, in Forest Hill north of Heller Parkway and west of Clifton Avenue, and in that part of the City lying west of Branch Brook Park.

Generally speaking, the required yards are the same as in the single family districts

but the lot area per family requirement is reduced to 1500 square feet. There are several areas in the present Second Residence Districts which are changed to the proposed Two, Three, and Four Family Districts.

Multiple Dwelling Districts

The present ordinance provides one multiple dwelling district entitled the Third Residence District. This is a large bulk district which permits apartments, tenement houses, and hotels, and which provides a maximum height limit of twice the width of the street on which the property fronts. There are many areas in the City in which the predominant development is two or three story buildings, and it is recommended that this type of development be recognized by creating a new multiple dwelling district in which no building more than three stories high would be permitted. The new ordinance proposes to change quite a large number of Third Residence Districts to the new three story residence district. In general, these areas are located in the older parts of the City between the central areas and outlying residence districts.

Front, side, and rear yard requirements are approximately the same as those in the present Third Residence District, but in some instances the requirements are more stringent. 625 square feet per family are required in this district.

The proposed ordinance provides a multiple dwelling district which permits large apartments and hotels. In general, these areas are located within those parts of the City which should be re-developed, and the density requirements are in line with those recommended in the Housing Plan for such districts. For example, major portions of the Third Ward and First Ward are shown as Fourth Residence. The development of large apartments either should be in areas scheduled for re-development or along certain parts of the main thoroughfare system where

transportation facilities are adequate. It is recommended that such a district be established on Clinton Avenue west of Baldwin Avenue and extending to Girard Place. This is presently zoned for business. It is also recommended that the west side of Mt. Prospect Avenue between Abington Avenue and Elwood Avenue be changed from its present single family zoning to the proposed third residence district and the opposite side of the street be placed in the Fourth or large apartment district.

In the proposed Fourth Residence District, there is a height limit of ten stories, and a requirement that for buildings of more than three stories in height the side yards must be increased one foot for each story above the third. 250 square feet of lot area is required for each family.

The present Second Residence District, which is closely comparable to the proposed Second Residence District, contains 709 acres. The proposed ordinance provides approximately twice this area, or 1,406 acres. The present Third Residence District contains an area of 1,122 acres, while the proposed Third and Fourth Residence districts contain an area of 1,827 acres. This apparently large increase is partially accounted for by the fact that it includes several of the large parks and cemeteries which are now not zoned.

Business Districts

The present ordinance provides two types of business districts. The First Business District permits certain commercial uses, but excludes certain types of business and industry. The Second Business District permits general commercial uses, but excludes certain industrial uses. This district generally embraces the central business district and the frontage along most of the main thoroughfares. First Business Districts are generally located along the streets in the outlying sections of the City, and at other places

where commercial development has been established outside of the central business district.

The proposed ordinance recommends the establishments of four types of business districts. The First Business Districts are generally located in the outlying residence areas. Commercial uses of all kinds are permitted. This district has a height regulation of 2½ stories, and, where part of the block is zoned for residence, a front yard is required.

The Second and Third Business Districts are generally located along the main thoroughfares and permit general business uses, except those which are generally considered to be out of place near retail business. There is no difference between the use regulations of the Second and Third Districts, but there is a four story height limit in the Second District and a ten story height limit in the Third District.

The Fourth Business District is located in the central part of the City, and generally covers what is known as the Central Business District. Inasmuch as the upper floors of many of the buildings in this area cannot be utilized, except for some form of light industry, the uses permitted in the Fourth District include light industrial uses, but exclude those types of industrial uses which would not be compatible with retail trade. The height limit in this district is based on the width of the street and permits buildings to exceed 2½ times the street width, providing certain setbacks are established.

The present zoning ordinance permits gasoline filling stations, or public garages, only in heavy industrial districts, and requires action by the Board of Adjustment for locations elsewhere. Inasmuch as relatively few gasoline stations seek locations in heavy industrial districts, the effect of this regulation is to bring practically all applications for such uses before the Board of Adjustment for decision. This is not a satisfactory way to control such uses, and the new ordinance re-

TABLE 7

*Comparison of Existing and Proposed Zoning Districts
Newark, New Jersey*

	<u>AREA USED</u>		<u>AREA NOW ZONED</u>		<u>PROPOSED ZONING</u>	
	<u>Acres</u>	<u>Per Cent</u>	<u>Acres</u>	<u>Per Cent</u>	<u>Acres</u>	<u>Per Cent</u>
Single-Family Residence	1,044.5	6.9	636.0	5.3	757.4	6.3
Two-Family Residence	825.0	5.5	709.0	5.8	1,406.6	11.9
Multiple Dwelling	1,033.0	6.9	1,122.0	9.4	1,826.8	15.3
Total Dwelling	2,902.5	19.3	2,467.0	20.5	3,990.8	33.5
Commerce	791.0	5.2	1,584.0	13.3	996.5	8.1
Light Industry	356.0	2.4	1,322.0	11.1	1,486.7	12.5
Heavy Industry	1,702.5	11.3	5,780.0	48.5	5,469.0	45.9
Railroads	771.0	5.1				
Total Industry	2,829.5	18.8	7,102.0	59.6	6,955.7	58.4
Public and Semi-Public	2,209.0	14.6				
Parks and Playgrounds	790.0	5.2	790.0	6.6		
Vacant	2,723.2	18.0				
Streets	2,858.8	18.9				
Total Land Area	15,104.0	100.0	11,943.0	100.0	11,943.0	100.0
Water	1,331.2					
Total City Area	16,435.2					

Total Commercial Frontage Developed 366,909 Lineal Feet
Total Commercial Frontage Now Zoned 853,770 Lineal Feet
Total Commercial Frontage Proposed to be Zoned 449,060 Lineal Feet

commends that gasoline filling stations be permitted in any industrial district. The new ordinance also recommends that public garages be permitted in the Fourth Business District where such garage is primarily used for the parking of automobiles, and in any industrial district. The proposed ordinance changes a considerable amount of frontage from commercial to some form of residential use. This change is logical in those instances where the property is not developed for commercial use and is either vacant or used for residential purposes.

Industrial Districts

The present ordinance provides two industrial districts. The First Industrial District is limited to industries which are not obnoxious by reason of smoke, dust, noise, or odor. The Second Industrial District permits any use, except residential. The prohibition of residential development in heavy industrial districts is proper and should be continued.

The proposed ordinance provides two light industrial districts and one heavy industrial district. The two light industrial districts conform very closely to the present First Industrial District, the only difference being in the height regulations. In those areas located generally in the residential sections of the City, a three story height limit is recommended, while in areas in the central part of a city and in the principal industrial sections, the proposed height limit is based on the street width. The proposed heavy industrial or Third Industrial District corresponds generally with the present Second Industrial District, and very few changes are proposed in this instance. The present ordinance sets aside 7,102 acres of land for industrial purposes, whereas, the proposed ordinance classifies 6,956 acres as industrial. The slight decrease in area is occasioned, by the fact, that in a few locations the present industrial zoning is proposed to be changed to commercial.

Table 7 gives a comparison between the areas now used for different purposes, the areas now zoned for such purposes, and the areas proposed to be zoned in the new ordinance.

Non-Conforming Uses

In view of the fact the Newark was a built-up City before the original zoning ordinance was adopted, there were many scattered commercial and industrial buildings whose locations were such that they could not be fitted into a logical zoning plan. It was formerly thought that these improperly located uses would eventually outlive their usefulness and that they either would be removed entirely or replaced by a conforming structure. Unfortunately, this hope has not been realized, and the great majority of the old buildings still are being used for non-conforming purposes.

In addition to the non-conforming uses created when the Newark zoning ordinance was first enacted, many new ones have been brought into existence during the last twenty-five years through action of the Board of Adjustment. When a variation is granted, permitting a use which the zoning ordinance prohibits in a particular location, legal sanction is given the change in use, but the district map is not changed. Consequently, these changes in use, become non-conforming and remain so, unless the map itself is changed.

While the proposed new zoning ordinance will correct some of the obvious discrepancies between the actual use of land and the manner in which it is zoned, there still will be many non-conforming buildings left. Commercial and industrial uses scattered throughout residential areas are often a major cause of blight and they are always detrimental to the neighborhood. It will be extremely difficult to rehabilitate these areas as long as the old stores or factories remain. Long range re-development contemplates the

eventual re-building of the worst of the slum areas at which time the non-conforming uses will be eliminated by purchase or condemnation, but there are many parts of the City which need cleaning up and rehabilitating without going to the extent of completely re-building them. As a part of this process of rehabilitation, some practical means must be developed to eliminate the non-conforming uses.

As stated previously, the New Jersey Zoning Enabling Act permits non-conforming uses to be continued indefinitely, and in case of damage by fire, or otherwise, they may be restored or repaired. The provision also applies to the use of land where no building is involved. This provision goes much further than the laws of a majority of States; most of these laws provide that non-conforming buildings may not be structurally altered or restored in case of substantial damage. Theoretically, the strict enforcement of such a provision would eventually cause the elimination of the non-conforming use. Actually, however, very few non-conforming buildings have ever depreciated to the point where razing is necessary.

A more positive and direct approach to the problem is needed. Authority should be granted municipalities to require the discontinuance of non-conforming uses within a reasonable time. In the case of a building, this should be a period of years sufficient to permit the equitable amortization of the investment. In the case of land uses such as junk yards, used car lots, and the like, where there is no substantial building investment, the period of amortization may be relatively short. In order to permit the gradual elimination of non-conforming uses, the following amendments to the New Jersey Zoning Act are recommended:

Section 40:55-48

"Any non-conforming use or structure, existing at the time of the passage of an ordinance, may be continued upon the lot or in the building so occupied; provided that

reasonable regulations may be adopted by councils or other governing bodies of Municipalities of the State for the gradual eliminating of uses of land and building that do not conform to such regulations and restrictions."

Administration

Board of Adjustment. No zoning ordinance is more effective than its administration and enforcement. Under New Jersey Law, a Board of Adjustment has been functioning for many years in Newark. This Board has three main functions:

1. To hear appeals from decisions of the officer who enforces the zoning ordinance.
2. To grant certain exceptions to the terms of the zoning ordinance.
3. To authorize variations in the terms of the zoning ordinance in order to relieve unnecessary hardship.

The work of the Board is principally concerned with the granting or refusing of applications for variance. The Board may grant a variance where the property in question abuts a district in which the requested use is permitted, but in other cases they may only recommend action by the City Commission.

The only restriction placed upon the Board of Adjustment or City Commission in the granting of variances is that such variances shall not be contrary to the public interest and where a literal interpretation of terms of the ordinance will result in unnecessary hardships. A further requirement is that the spirit of the ordinance shall be observed and substantial justice done. These requirements are so broad that, in effect, they impose little or no limitations on actions taken by the Board. As a result, hundreds of variations have been granted for uses in districts where such uses are not permitted under the zoning ordinance. In effect, such variances are changes in zone, but the ordinance itself is not altered.

While Boards of Adjustment are essential to proper administration of the zoning ordinance, their actions should be limited to cases where there is some extraordinary physical reason which a strict enforcement of the ordinance would result in real hardships to the owner and where it is not a question of mere convenience or financial advantage. Operating within narrowly prescribed limits of authority, the Board should have sole jurisdiction in all matters in which they are to act, and the City Commission should not be brought in at all. The City Commission, being the City's legislative body, should limit its actions in zoning matters to those having to do with amendments to the text of the ordinance and changes in district boundaries. Before taking action on any proposed change in the zoning ordinance, the matter should be referred to the Central Planning Board for a report.

In order to insure proper future functioning of the Board of Adjustment, it is recommended that the present state zoning law be amended to prescribe definite limits within which the Board should operate. The suggested amendment follows. The following language should be substituted for that in the statute:

Section 40:55-30

Powers of Board of Adjustment. The Board of Adjustment shall have power to:

Hear appeals from administrative official.

(a) *Hear and decide appeals, where it is alleged there is error in any order, requirement, decision, or determination, made by an Administrative Official in the enforcement of any ordinance adopted or in force pursuant to this article;*

Hearing involving special exceptions.

(b) *Hear and decide special exceptions to the terms of the ordinance upon which such board is required to pass under such ordinance.*

Authorize variance from strict adherence to ordinance.

(c) *Authorize upon appeal in specific cases such variance from the terms of the ordinance as will not be contrary to the public interest, where, owing to special conditions, a literal enforcement of the provisions of the ordinance will result in a clearly demonstrable hardship of a confiscatory character as distinguished from a special privilege or convenience that is contrary to the spirit of the ordinance, and so that the spirit of the ordinance shall be observed, public safety and welfare secured, and substantial justice done.*

HOUSING

Health and building authorities have long known that deplorable housing conditions exist throughout Newark. It is a matter of common knowledge that deterioration and obsolescence have blighted large areas in many parts of the City and also in certain sections of the metropolitan area.

The acute shortage of living accommodation has dramatized the problems and brought a general public recognition of its seriousness.

A comprehensive housing program must be designed to effect the gradual elimination of sub-standard houses in Newark, to encourage and protect good residential neighborhoods, and eventually to rebuild or rehabilitate slums and blighted districts throughout the City.

Housing is a most important part of the urban structure. Streets, parks, playgrounds and other public and semi-public uses occupy approximately forty percent of the total City area. Of the remaining sixty percent, commercial, industrial and other non-residential uses occupy a much smaller area than that devoted to housing. In Newark, the land use studies show that residential property constitutes 44.5 percent of the City's privately developed area. It is obvious, therefore, that the proper location, arrangement, and protection of residential sections of the community must be as much a part of the City Plan as the arrangement and coordination of the various facilities to serve them, such as sewer, and water lines, streets, transit and transportation lines, public buildings, parks and playgrounds.

From an economic and social standpoint, the general housing situation is of great concern to the citizen and taxpayer. The main source of revenue to operate the City is derived from real estate taxation and a very substantial part of this income comes from residential property. If areas depreciate in value, it becomes necessary to lower the assessments and tax collections drop. More-

over, areas of bad housing and slums are an economic drain on the entire community necessitating large additional outlays for hospitalization, relief, public health, clinics, policing, and fire protection. The protection and rehabilitation of its residential neighborhoods, therefore, are of the utmost importance to Newark both to maintain and increase its revenue and reduce the heavy costs of its slums.

The history of American cities has been one of shifting populations and land values brought about by uncontrolled development in the outskirts and abandonment of the older close-in areas. As long as the cities were growing rapidly, the economic losses brought about by this process of unplanned and chaotic expansion were offset by the new values created, and the threat to the City's economic stability was not generally appreciated. Now that urban growth has materially slowed down, the process of decay in the central areas continues, and these losses can no longer be recouped by new growth on the periphery. The cities are faced, on the one hand, by diminishing tax revenues and, on the other, by sharply rising costs of government. **Unless this trend can be reversed in the reasonably near future, more municipal revenue must be obtained from sources other than real estate.**

Minimum Standards for Urban Housing

What are the essentials to more satisfactory housing in Newark? By what standards shall individual homes be judged? What are the neighborhood amenities necessary for the protection and preservation of the whole community structure? The answers to these questions provide a measuring stick for evaluating present housing conditions in Newark as well as a goal for their future improvement. Obviously, certain minimum requirements must be met for the maintenance of health

and welfare of every citizen of the community. These minimum standards for every dwelling unit might be summarized as follows:-

1. Each unit should be structurally safe and in a good state of repair.
2. Each unit should be provided with running water and a private inside toilet.
3. Every room should be supplied with adequate natural light and air.
4. Each unit should be of sufficient size, in relation to the family group, to prevent overcrowding of more than one person per room.
5. Each unit should be supplied with the means of proper heating and with adequate lighting and cooking facilities.

For the protection and preservation of residential neighborhood, certain minimum standards or essential features might also be listed, such as the following.

1. The neighborhood should be homogeneous in character and of sufficient size to maintain and protect its own environment; for example, the area ordinarily tributary to an elementary school.
2. The neighborhood should be provided with all utilities and essential community facilities including an elementary school and community center and conveniently located shopping districts.
3. Adequate parks and other public recreational facilities should be supplied.
4. The neighborhood should be bounded by main thoroughfares designed in such a manner as to discourage the use of local streets by through traffic.

Community Responsibility for Condition of Housing

As previously noted, the present conditions of urban housing are the direct result of past methods of community growth and failure of cities to adopt definite policies, either by control or improvements of these conditions. For many years, the older cen-

tral areas have been losing population. Many buildings have been abandoned or demolished. Depreciation and obsolescence have grown steadily worse. Crime, disease, and social deterioration have taken a heavy toll. Tax delinquency has reached serious proportions.

Once these conditions have become established, it is well nigh impossible to reverse the trend. Even if arrested, irreparable damage has been done.

The individual property owner is helpless in the face of these adverse trends. Any expenditures made on his property for improvement of the entire neighborhood is likely to be wasted. The problem must be attacked at its origin, and its origin lies both in the past practices of expediency and laissez faire city development and in the failure of the community to realize or to accept its responsibility for these conditions.

Following are some pertinent facts to be kept in mind in analyzing Newark's housing problem.

1. A substantial part of Newark's population occupies dwellings that are below generally accepted minimum standards of health and decency. Of the estimated 118,550 dwelling units existing in Newark in 1945, 38,423, or 32.4 percent, either need major repairs or lack private baths, private toilets, or private water supply. 7,887, or 20.05 percent of these sub-standard accommodations are occupied by Negroes. This means that more than one-half of all Negroes in the City live in unhealthful and unwholesome quarters.

2. Many of the residential structures in Newark have deteriorated to the point where they are no longer fit for use. In 1935, according to a Real Property Inventory conducted by the State Housing Authority, 4,178 out of 44,451 residential structures then existing in Newark were found to be in this category. This represents 9.4 percent of the total number of residential structures. Further depreciation has taken place during the ensuing years since that report was made.

TABLE 8
Types of Dwellings 1940

Type	Number of Dwelling Units	Total of Percent
1-family detached	13,429	11.50
1-family attached	2,055	1.75
2-family side-by-side	4,350	3.72
2-family other	21,594	18.48
3-family	23,427	20.08
4-family	6,120	5.23
1 to 4-family with business	7,007	6.05
5 to 9-family	21,242	18.22
10 to 19-family	8,524	7.29
20-family or more	8,843	7.55
Other Dwelling Places	166	.13
Total	116,757	100.00

(From 1940 Census Reports).

3. Newark is predominantly a city of renters. In 1940, 91,985, or 78.7 percent, of the 116,757 dwelling units existing at that time, were occupied by tenants, 20,209, or 17.3 percent, were owner-occupied, while 4,563, or 4.0 percent, were vacant. This percentage is somewhat higher now since there are practically no vacancies in rental properties, and few owner occupied homes have been erected since 1940.

4. The maturity of Newark is reflected by the age of its residential structures. In 1940, 27.6 percent of all residential structures were built prior to 1900, while 41.1 percent were built between 1900 and 1919.

5. A large segment of Newark's population has insufficient income to occupy new housing provided by private enterprise under existing prices and conditions. In 1940, while the average monthly rent for the entire city was \$33.36 per month, 19.0 percent of existing accommodations rented for, or had a rental value less than \$20.00 per month; while 31.6 percent rented between \$20. and \$30. per month. In Essex County, outside of Newark, rentals are substantially higher. Only 24.2 percent of the dwelling units in that area were rented for less than \$30. per month in 1940. (See Table 9.)

6. Relatively little new housing has been provided in Newark within the past sixteen years. From 1921 to 1928 inclusive, a total of 25,999 new dwelling units were built in Newark, an average of 3,249 per year. From 1929 to 1944 inclusive, 6,571 dwelling units were constructed, including 2,736 dwelling units in public housing projects. Excluding the latter, an average of only 244 dwellings have been constructed annually since 1929. (See Plate No. 4).

7. While Newark experienced a loss in population of 12,577 between 1930 and 1940, there was a substantial increase in the total number of families during the same period. The increase amounted to 7,130 families, or 6.8 percent, over 1930. The accelerated marriage rate in effect since 1940 will result in a continuation of this trend for some time to come. A future housing program must take these facts into consideration.

8. The percentage of new residential construction in Newark to that of Essex County has been steadily decreasing since 1922.

Except in 1933 and 1934 at the depth of the depression, the percentage has declined on the average from 50 percent in 1922 to 2 percent in 1940. Since 1940, there has been a slight increase. Excluding public housing projects, an average of 1,214 dwelling units annually have been built in Newark since 1920 as contrasted to 3,240 constructed annually in Essex County outside of Newark during the same period. From 1937 to 1943 inclusive, residential building in the county has averaged 2,000 units per year compared to 112 per year in Newark. (See Plate No. 4).

9. Deterioration of housing facilities has become so serious in Newark that relatively large areas need to be demolished and entirely re-built. Areas in which more than 50 percent of the dwellings are sub-standard aggregate 1,209 acres, or 7.95 percent, of the entire City area. These sub-standard areas contain 26,000 dwelling units or 22.0 percent of the total number and a population of 95,400 or 22.2 percent of the 1940 population.

10 It is estimated that 55,000 new dwelling units should be constructed in Newark in the next twenty-five years to keep pace with demands from new families and to eliminate the present sub-standard accommodations. This program involves the construction of 2,200 new dwelling units annually. In addition to providing the above new living accommodations during the same period, 22,000 dwelling units should be rehabilitated and modernized.

A Proposed Comprehensive Housing Program for Newark

The following program is designed to meet the situation in a realistic and practical manner and on a comprehensive basis. It is directed toward fulfilling the requirements of all the citizens of Newark and is to be carried out as part of a long-range plan of civic improvement. (See Plate No. 5).

Expressed in the simplest terms the program is divided into three parts:

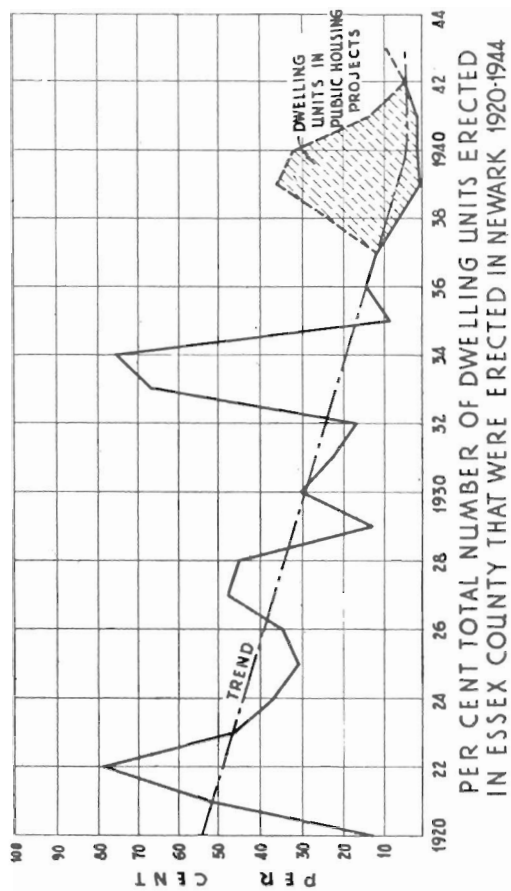
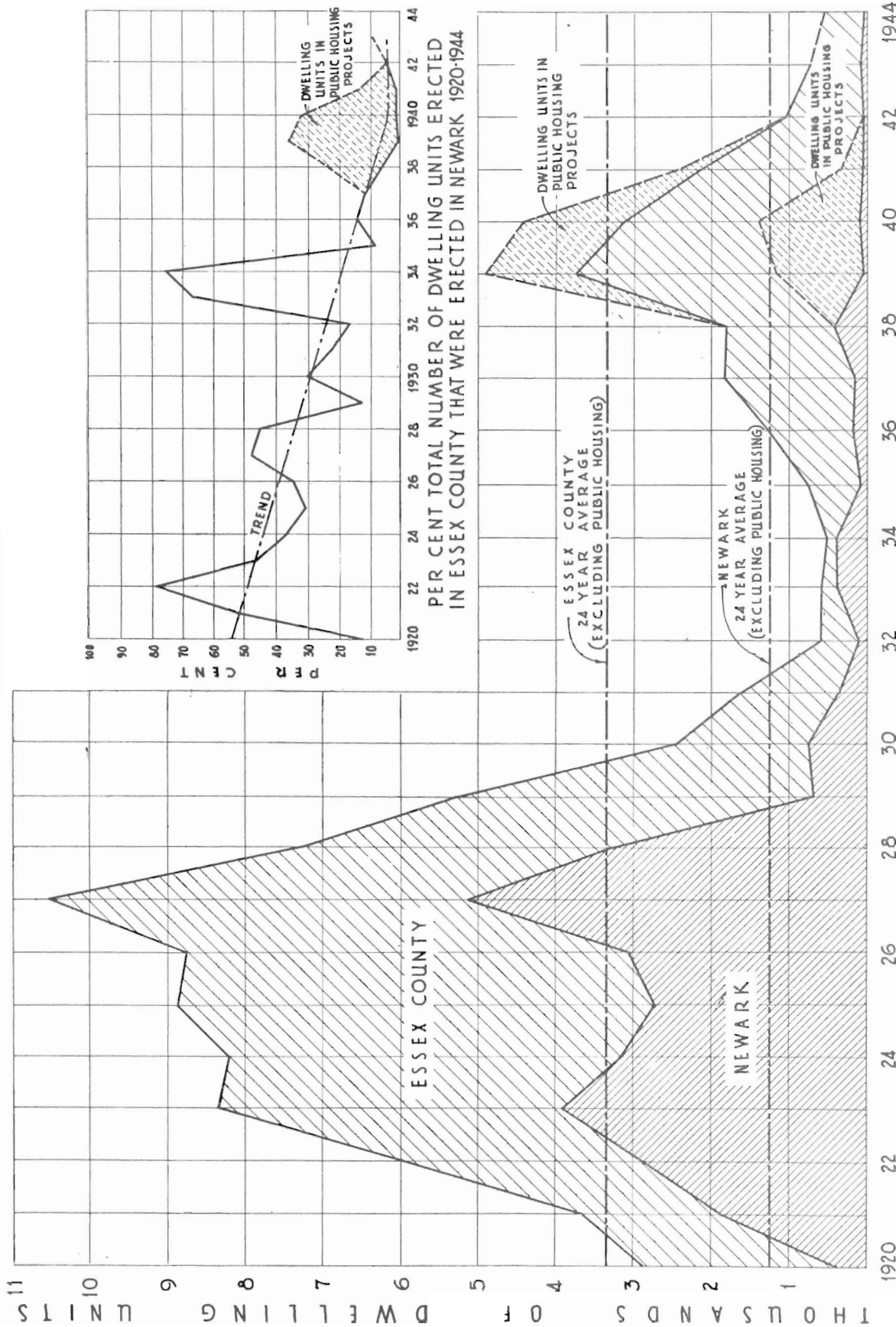
- (a) Protect home neighborhoods
- (b) Rehabilitate the blighted areas
- (c) Clear and re-build the slums

TABLE 9

*Contract or Estimated Rent All Reported
Dwelling Units 1940*

	Reported Owner- Occupied	Reported Tenant- Occupied	All Reported Dwelling Units	Percent of Total	Cumulative Total
Under \$5	25	61	86	.08	
\$ 5-6	16	134	150	.14	.22
7-9	36	520	556	.51	.73
10-14	323	5,089	5,412	4.98	5.71
15-19	641	13,787	14,428	13.32	19.03
20-24	1,364	16,765	18,129	16.74	35.77
25-29	1,475	14,590	16,065	14.84	50.61
30-39	3,100	18,664	21,764	20.05	70.66
40-49	2,765	12,335	15,100	13.95	84.61
50-59	2,334	5,088	7,422	6.75	91.36
60-74	2,451	2,516	4,967	4.58	95.94
75-99	1,723	860	2,583	2.38	98.32
100 and over	1,484	337	1,821	1.68	100.00
Total Reported Dwelling Units	17,737	90,746	108,483	100.00	
All Occupied Units	20,209	91,985	112,194		
Vacant Units			4,563		
Total Dwelling Units			116,757		

(From 1940 Census Reports).



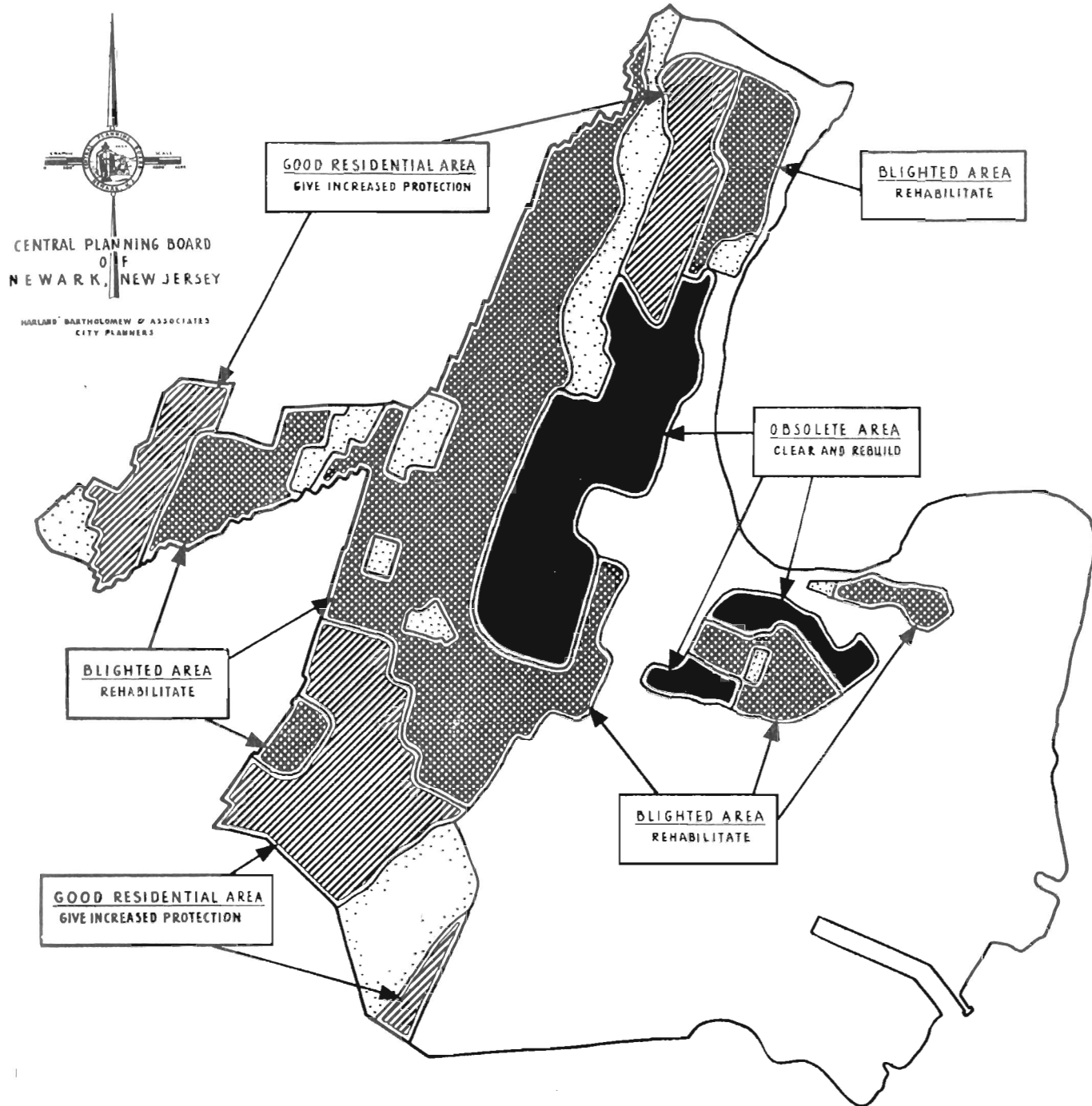
TOTAL NUMBER OF DWELLING UNITS ERECTED IN NEWARK AND ESSEX COUNTY

CENTRAL PLANNING BOARD
OF NEWARK, NEW JERSEY

HARLAND BARTHOLOMEW &
ASSOCIATES
CITY PLANNERS

1920 - 1944

INFORMATION FROM RECORDS OF NEWARK
BUILDING DEPARTMENT AND NATIONAL HOUSING AGENCY.



A PROPOSED HOUSING PROGRAM FOR NEWARK

It is apparent that there are no simple solutions to the complex and long-standing problems that confront the City. The situation demands the mobilization of all of the resources, ingenuity, and "Know-how" possessed by the community. It calls for leadership of the highest order and the co-operation of all groups of citizens. Failure to achieve the unanimity of purpose and to carry through on a continuing basis can only lead to greater slums, increased blight, higher taxes, eventual jeopardization of real estate values, and accelerated exodus from the City. The suggested program follows:-

1. **Strengthen the protection now afforded residential sections of the City where houses are of good standard.** This can be done in the following manner:-

(a) **Adopt revised Zoning Ordinance.**

(b) **Keep Public Property Clean and in Repair.** Good municipal housekeeping is an other aid to preserving the character of home neighborhoods. Keeping the roadways clean and in repair and maintaining the street trees in good condition are examples of what is meant.

(c) **Organize Neighborhood Protective and Improvement Associations.** The preservation of good residential environment cannot be accomplished by small groups of property owners working alone. Some means must be made available to combat the forces which tend to destroy neighborhoods. One means of doing this is through the organization of neighborhood protective and improvement associations in all residential sections of the City.

The principal function of a neighborhood association is to analyze the factors which have made the area less desirable, or which are threatening to do so, and then to work out a plan for improvements shown to be necessary by the study. In working out the improvement plan, technical assistance could be rendered by the Central Planning

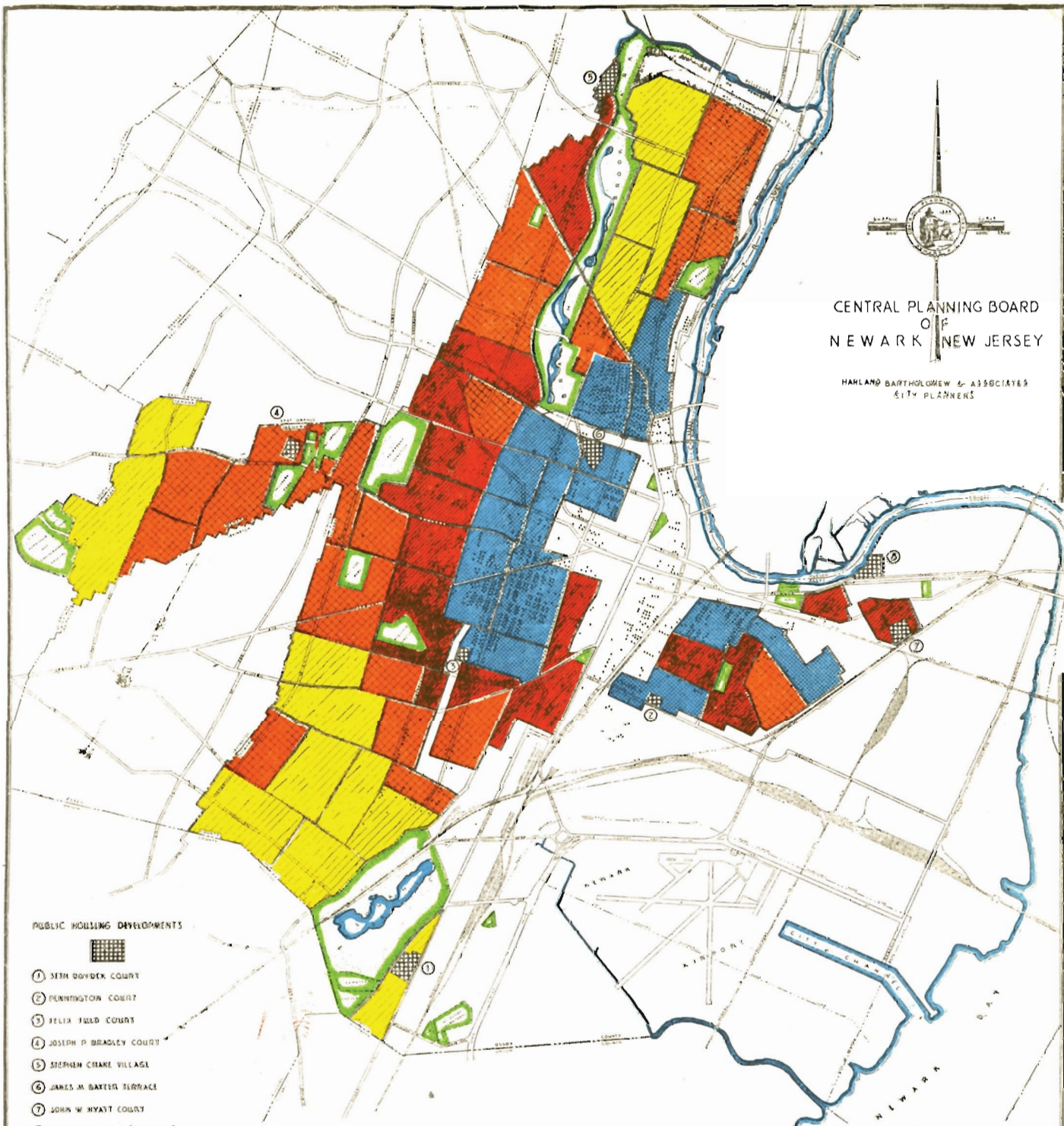
Board, whose function is to see that the proposals fit in with the Master Plan of the entire City.

Plate No. 6 shows a tentative division of the City into neighborhoods. The limits of these areas are generally main thoroughfares, railroads, industrial districts, or other natural or artificial boundary lines. Each neighborhood contains a population sufficient to support an elementary school. Insofar as was possible, an attempt was made to make the areas socially homogeneous. Areas that are predominantly industrial or commercial in character, were excluded. The suggested division of the City is preliminary in nature and subject to revision when more detailed neighborhood studies are made.

2. **Rehabilitate Blighted Neighborhoods.** There are many areas in Newark which have not yet reached a state of complete obsolescence or dilapidation; they are, nevertheless, no longer considered good residential neighborhoods. These circumstances may be due to the proximity of objectionable industrial development, the encroachment of more intensive or inappropriate uses, failure to properly maintain the residential structures, and many other factors. These areas are definitely on the downgrade, but have not reached the point where complete rebuilding is necessary. Their continued retrogression, however, will eventually result in slums. A comprehensive housing program must look toward the improvement of these districts. The following specific recommendations are made:-

(a) **Remove or close those structures which are unfit for use by vigorous enforcement of the Housing Ordinance authorizing such action.** This ordinance was passed by the City Commission on July 14, 1943, following recommendations of the City Health Department.

(b) **Rehabilitate all dwellings which are in need of repairs to bring them up to acceptable standards of health and decency.**



CENTRAL PLANNING BOARD
OF
NEWARK, NEW JERSEY

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS

PUBLIC HOUSING DEVELOPMENTS

- ① NETH BOYDCK COURT
- ② PENNINGTON COURT
- ③ FELIX FELD COURT
- ④ JOSEPH P BRADLEY COURT
- ⑤ STEPHEN CHASE VILLAGE
- ⑥ JAMES M. BAKER TERRACE
- ⑦ JOHN W. HYATT COURT
- ⑧ BOWLING GREEN HOMES (PROPOSED)

CITY OF NEWARK, NEW JERSEY TYPES OF NEIGHBORHOODS

L E G E N D

- | | | |
|--|---|--|
| NEIGHBORHOODS NEEDING COMPLETE CLEARING AND REDEVELOPING (MORE THAN 50% OF DWELLING UNITS SUBSTANDARD) | NEIGHBORHOODS NEEDING REHABILITATION (25% TO 75% OF DWELLING UNITS SUBSTANDARD) | PARKS AND GREEN SPACES |
| NEIGHBORHOODS NEEDING PARTIAL CLEARING AND REDEVELOPING BUT EMPHASIS PLACED ON REHABILITATION (25% OF DWELLING UNITS SUBSTANDARD) | AREAS UNSUITED TO RESIDENTIAL USE, MAJOR INDUSTRIAL, COMMERCIAL AREAS, ETC. | |

NOTE: EACH DOT REPRESENTS ONE DWELLING-STRUCTURE DECLARED UNFIT FOR USE BY BUILDING DEPARTMENT IN 1955

If voluntary action by the property owner cannot be obtained, then force compliance with the requirements of the Housing Ordinance referred to in the preceding paragraph.

One reason why landlords are reluctant to modernize their structures is the additional tax levy brought about by such improvements. As an incentive to making improvements, it is suggested that legislation be enacted that would provide limited tax exemption for such improvements.

Rehabilitation on a large scale might be undertaken by Urban Redevelopment Corporations organized under the New Jersey Urban Redevelopment law. A corporation of this nature logically could acquire and operate blighted property that has not yet reached a stage of deterioration that would necessitate its immediate demolition. The corporation could operate these properties for a number of years until the time was ripe for their inclusion in a re-development project. In the meantime, deterioration would have been arrested and the better adjoining areas would have been protected.

One reason why residential areas are no longer desirable is the lack of adequate public open spaces, obsolete and inadequate school and recreational facilities, and excessive commercial and other traffic through the areas. In many instances, it will be possible to re-adjust the internal street system and discourage any traffic movement by closing unnecessary streets and by improving major thoroughfares which form the boundaries of the district. Gradual modernization of the school system by re-building obsolete structures on enlarged sites is an important part of the Comprehensive City Plan. Every neighborhood should have complete facilities for recreational and cultural activities centered at the elementary school.

3. Re-build Slum Neighborhoods. It is estimated that about one-twelfth of the en-

tire City area of Newark should be completed re-built. The re-development of these slum areas is essential if Newark is to progress in the future.

The locations of these areas are shown in Plate No. 6. In general, they are located within a ring surrounding the down-town business district, although in some instances they extend a considerable distance from the center of the City. Within these areas, major problems of health, sanitation, crime and delinquency, and poverty exist.

There are no magic formulae which will cause these areas to be eliminated and re-built. The only way in which such a tremendous job can be accomplished is by the co-operative efforts of the City Government and all citizens' groups in Newark. The Planning Board can bring the conditions to public attention and can suggest possible ways and means of solving the problem, but nothing can be accomplished without the organized and wholehearted support of the citizenry.

No re-development program can be fully effective unless it is made part of the Newark Comprehensive City Plan.

Sporadic efforts to reclaim small areas will not solve the problem. It must be done on a comprehensive basis as a part of a long-range program of municipal improvements.

The three major obstacles to be overcome in any re-development program are (1) the high cost of the property to be acquired (2) the necessity of providing new housing at rentals that can be paid by their future tenants, and (3) the provision of housing accommodations for families displaced in re-development areas. These problems are particularly acute in Newark where much of the slum property consists of closely-built multiple family dwellings of substantial construction. There is an acute housing shortage, and, because of the fact that being an industrial City, a large majority of the people

do not have sufficient income to pay rentals that would encourage private enterprise to provide decent housing in slum areas.

Under these conditions, it becomes evident that new means and methods must be developed for public acquisition and clearance of slum areas.

One method is by some form of public housing such as has been done previously in Newark and elsewhere. The other method is to clear these sub-standard areas as a matter of wise public policy and offer them for re-development by private enterprise subject to modern standards of design, construction, and improved policies for maintenance and protection. Possibly a part of such areas could be devoted to public housing. All economic groups should be provided for.

The future housing program in Newark must be a combination of these two methods, but the greater emphasis must be placed on encouraging the use of private initiative and funds to do the job.

The following specific recommendations are made:-

(a) **Continue the program of public low-rent housing as a part of the general re-development plan.** Future permanent projects of this nature should be located within the areas marked for re-development. These new projects should be limited to providing housing for those families whose incomes are well below the limits within which private enterprise can operate, either now or in the future.

The public housing program should be coordinated with any large scale privately financed developments, both as to location and timing. As the majority of the families that will be displaced by any re-development project, whether public or private, will be unable to pay an economic rent, some provision must be made for their re-housing in a different part of the City.

Consideration should be given to constructing some of these projects on property not now occupied by dwellings for the express purpose of providing homes for displaced low-income families during the period rebuilding operations are taking place in the slum areas.

(b) **Encourage the formation of Urban Re-development Corporations under the provisions of the Urban Re-development Law enacted by the State of New Jersey in 1946.**

(c) **Revise the State Tax Laws to relieve real estate of some of its burden of taxation.** Under the present taxing situation, home builders find it very difficult to construct new residences in Newark that can rent at reasonable rates. Likewise, the construction of garden apartments takes place in the suburbs rather than in Newark. The F.H.A. is unwilling to insure mortgages for new housing in Newark because of the high percentage of income which must be set aside to meet taxes. Every effort should be made to correct this situation.

Size and Scope of Proposed Re-Development Program in Newark

The Newark City Plan is designed to furnish a guide for future public improvements to be made over a period of 25 years. The Housing Program is an integral and essential part of the City Plan, and its execution should cover the same period.

Analysis of the future housing needs for the City show there should be approximately 55,500 new dwelling units constructed in the City during the next 25 years and that a total of 22,000 dwelling units should be modernized.

The program is based on the premise that all present and future sub-standard housing should either be removed and replaced or

rehabilitated. There are, at the present time, 38,423 dwelling units either needing major repairs or lacking private bath, private toilet or private water supply. These sub-standard units comprise 30.8 percent of the total number of dwelling units in Newark.

Estimated 25 Year Housing Program

(a) Additional dwelling units needed for estimated number of new families	7,317
(b) Present sub-standard dwelling units removed in re-development areas	14,742
(c) Present standard dwelling units to be removed in re-development areas	11,321
(d) Present sub-standard units to be removed in other areas (50% to be removed - 50% to be rehabilitated)	11,840
(e) Present standard units that will become sub-standard in next 25 years and will be replaced (50% to be removed - 50% to be rehabilitated)	10,325
	<hr/>
	55,545
Average number of new dwelling units to be constructed annually 1945-1970	2,220
Total number dwelling units to be rehabilitated	22,165

The program set forth above is a large one including a total expenditure of approximately \$3000,000,000., at pre-inflation prices, but it does not appear so formidable when broken down into the amount of new constructions needed annually. 2,200 new dwelling units must be constructed annually to maintain the continuity of the proposed program, while 900 dwelling units should be rehabilitated each year. The annual cost of the program would be approximately \$12,000,000. Between 1921 and 1928, new dwelling units were being built in Newark at an average of 3,249 per year. This was during the boom period, and since 1929 the rate of construction has materially decreased. Excluding public housing projects only 244 dwelling units have been built annually since 1929.

Because of the lack of available vacant property for new residential construction within the corporate limits of Newark, the future program must be largely that of replacing existing housing.

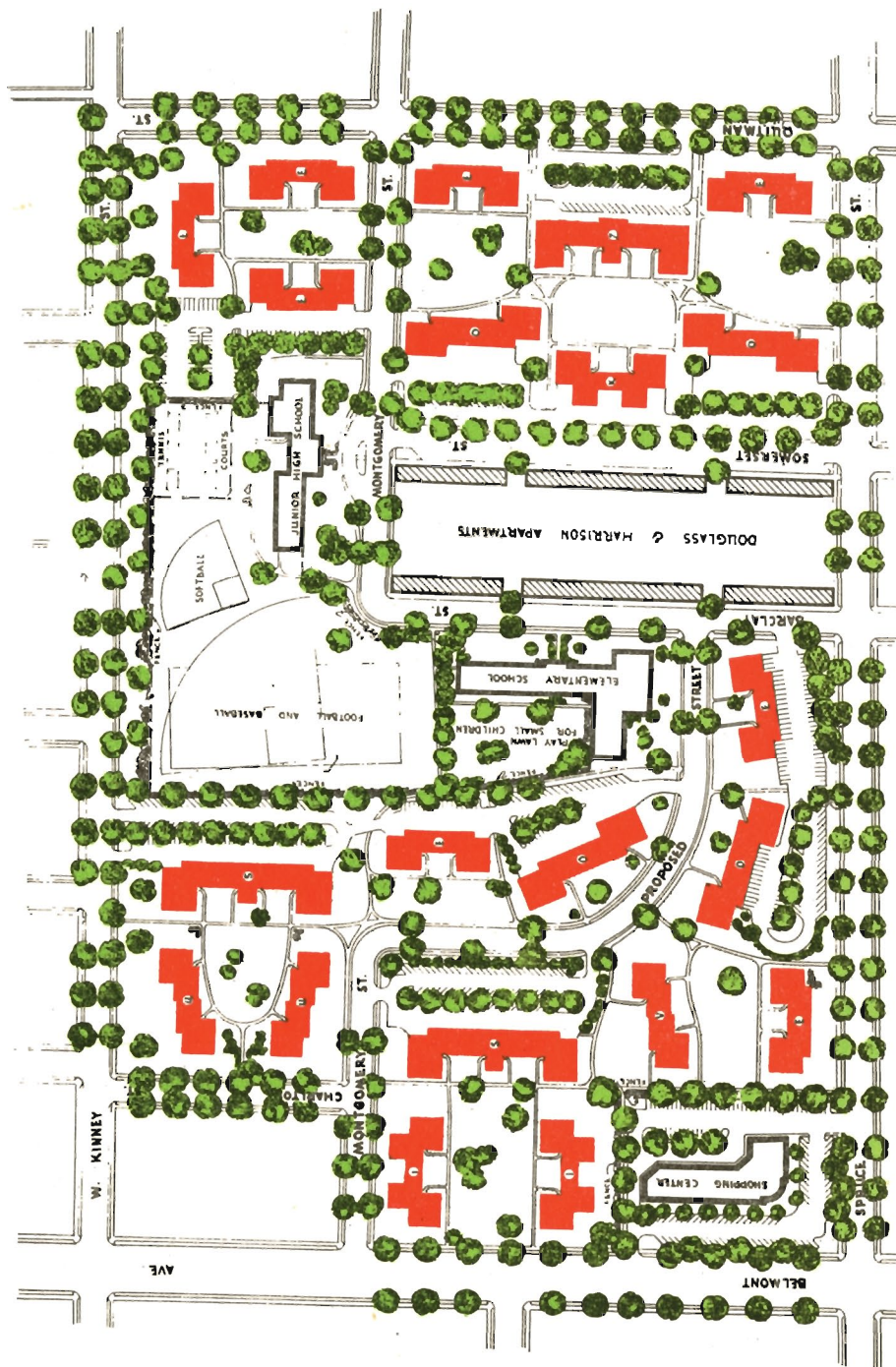
Plates No. 7 and 8 show proposed plans for the large scale re-development of two typical slum areas in Newark.



A PROPOSED REDEVELOPMENT PLAN FOR THE THIRD WARD, NEWARK, NEW JERSEY AREA "A"

CENTRAL PLANNING BOARD OF
NEWARK, NEW JERSEY

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS



A PROPOSED REDEVELOPMENT PLAN FOR THE THIRD WARD, NEWARK, NEW JERSEY AREA "B-1"

CENTRAL PLANNING BOARD OF
NEWARK, NEW JERSEY

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS

MAJOR STREETS

A well planned modern street system is essential to the welfare and prosperity of Newark.

Public streets are the most valuable asset any city possesses. In the aggregate, they occupy approximately 25 percent of the entire urban area. They provide means for circulation of traffic throughout the city and for access to all property. They furnish light and air to abutting properties, and in them are located the various public utilities that make urban life possible.

They not only provide means for access between all parts of the community, but, by their connections to the State Highway system, they furnish means of communication with all parts of the Country.

A well designed street system must provide easy, safe, and convenient access to residential, commercial, and industrial section of the City from all parts of the City and metropolitan area. Such a system will eliminate, or greatly minimize, traffic congestion and increase safety both for motor vehicles and for pedestrians. Closely associated with a modernized street system, is the provision of adequate off-street parking facilities. In commercial and industrial areas, such a system will minimize the damaging effects of heavy traffic in residential districts by channeling such traffic on streets which will carry it around these areas.

Because of the difficulties of keeping pace with the rapid development of the automobile, no American city has solved its traffic problem. Most cities' street systems were laid out before automobiles were ever thought of, and, once established, the pattern is most difficult and costly to change. Unless the street system is modernized in accordance with present and future traffic needs and as part of the comprehensive plan of re-building the community, stagnation will take place, decentralization will be accelerated, and property values in the central areas will continue to decline.

The rapid development of the automobile

has had a far-reaching effect on city development, and has widened the potential area of urban development from the former 4 or 5 mile radius to a radius of 20 miles or more. While the centralized city still remains the most economical and sound form of urban structure, the stability of all large urban communities has been seriously threatened by the continued spread of population into the suburbs. As long as acute congestion exists in the central city, this trend will continue. Lack of accessibility to the principal business sections of Newark has also accelerated the decentralization of business, which naturally follows the suburban spread of population. Continued deterioration of property values in the central area is inevitable, unless effective measures are taken to increase the accessibility, safety, ease of movement, and parking facilities in the downtown district.

One of the reasons for the spread of blight through the older residential areas is because traffic is dispersed throughout these areas over streets which are primarily residential in character and which are not designed to carry heavy traffic. Experience has shown that the great majority of traffic can be accommodated on less than one-fifth of the total street mileage in the urban area, provided, such streets are improved to facilitate freedom of movement and operational safety. Such streets should have a wide surface, direct alignment, and should be so located as to serve the largest number of potential users most conveniently. These relatively few streets are known as Major Streets, while the rest of the thoroughfares comprised in the system are known as Minor Streets.

The spacing of major streets is such that the City is divided into neighborhoods or communities from which heavy traffic can be excluded. These residential neighborhoods must be protected, rehabilitated, or re-developed in accordance with a comprehensive plan if the community is to remain

in a sound and stable condition. The major street system must also be carefully coordinated with the City Zoning Plan, its population density and distribution, railroad facilities, and the City School and Parks system.

Newark has become almost entirely built-up, and comparatively little new population growth can be expected in the future. The problem resolves itself, therefore, into improving what we now have that is bad, protecting good areas, and gradually elevating the general tone of the whole community. Execution of the major street plan will greatly aid this program.

Inasmuch as the present street pattern is so firmly established, from a practical standpoint it will be necessary to use it as a basis for the new plan. As it is most difficult and expensive to increase the traffic capacity of the existing streets or to provide new streets through the built-up area, the modernization program must be planned to be carried out over a long period of time, and it must be completely co-ordinated with the City's long-range financial program. Since the present street system is not adequate to meet present traffic requirements, the plans and proposals, in addition to providing for future needs, must correct existing inadequacy.

Newark is the center of a metropolitan area having a population of approximately 1,500,000, and its industrial and commercial centers are the objectives of large volumes of traffic originating within this metropolitan area and other sections beyond. The City is a part of the New York region, and its traffic problems are directly connected to those existing throughout northern New Jersey. Obviously, it will be futile to attempt to design a street system for Newark without co-ordinating such plans with those of other communities in the Metropolitan Area, Essex County, the State Highway Department of New Jersey, and the Public Roads Administration of the Federal Government. The Major Street Plan has been developed only after careful consideration of

the traffic requirements in the surrounding areas.

The improvement program which follows is a part of a long-range plan for re-vitalizing the City. It is designed to be carried out over a period of 25 to 30 years. During this period, considerable local, County, State, and Federal funds will be expended in the Newark area, and it is essential to have a guide for the most efficient and appropriate use of these funds.

Summary of Street Improvement Program

1. Post-war traffic in Newark will be greatly in excess of present or pre-war volumes. Conservative estimates indicate that within five years there may be an increase of fifty percent. Motor vehicle registrations in the Newark Metropolitan area are expected to increase from 354,000 (1940 figures) to 533,000 in 1970. (See Table 13). (Page 78).

2. Newark's traffic problems are serious, but they can be solved if a comprehensive and co-ordinated program of street improvements is carried out jointly by the City, County, State, and Federal Governments. The basis for such a program is contained herewith.

3. Street improvements to be undertaken by the City of Newark should be made part of a long-range improvement program covering all capital expenditures to be made during the next twenty-five to thirty years. This program should be closely co-ordinated with a long-range financial program. Additional financial assistance from County and State sources will be required.

4. A comprehensive plan of parking facilities in the Central Business District should be adopted and carried out simultaneously with the street improvement program. This program is summarized as follows:

1. Supplement present parking lots and garages by providing additional off-street

facilities for shoppers and other persons having business in the district in the form of open-deck-type parking garages located as near the center of retail business as possible.

2. Augment the above facilities by constructing an underground parking garage in Military Park.

3. Provide additional facilities for all-day parkers and persons transacting business downtown by means of parking lots located along the distributor streets skirting the edges of the business district.

4. All off-street parking facilities should be privately operated. The City can assist in carrying out the program by acquiring property by condemnation and leasing to private operators at a rental sufficient to retire the necessary bonds and pay, as nearly as possible, the equivalent of full taxes on the property.

5. Install additional parking meters on streets convenient to retail shops where unmetered limited-time parking is now in effect.

6. Extend "No Parking" restrictions on streets where roadway capacity is limited and traffic is heavy.

7. Strictly enforce all curb parking regulations to insure utilization of off-street facilities and maximum turnover of spaces.

8. License all parking lots and prescribe minimum standards of size, location of entrances and exits, surfacing and fencing.

Following is a brief digest of the principal recommendations for specific improvements.

1. An official map should be prepared on which all future streets and street widenings should be shown thus establishing building lines within which no new build-

ings may be erected. The official map must be adopted by ordinance enacted by the Board of City Commissioners.

2. The following projects are of immediate importance and should be undertaken as quickly as funds can be made available:

(a) State Highway Improvements

(1) Complete Route 21 (McCarter Highway) through City of Newark.

(2) Construct William A. Stickel Memorial Bridge and its approaches to Clifton Avenue.

(3) Construct Route 25-A Freeway connecting the approaches to the Stickel Bridge at Clifton Avenue, extending westward to the connection with Northfield Road in West Orange and eastward to the Lincoln and Holland Tunnels. (Plate No. 15).

(4) Construct Route 100 through Port Newark to connect to Lincoln Tunnel in New York.

(5) Improve the Newark approach to Pulaski Skyway by widening Foundry Street Underpass.

(6) Construct Route 4 Parkway.

(b) County Highway Improvements

(1) Acceptance by Essex County of the Mt. Prospect, Clifton Avenue, Norfolk Street, Jones Street, Belmont Avenue cross-town route, as a County Highway.

(2) After acceptance of above route, construct connection between Mt. Prospect and Clifton Avenues at Bloomfield Avenue.

(3) Widen Norfolk Street between Orange Street and South Orange Avenue to 80 feet.

(4) Widen Bloomfield Avenue from City limits to Broad Street to 100 feet. (Now being done).

(5) Acceptance by Essex County of Broadway between Bloomfield Avenue and Broad Street as a county highway.

(6) After acceptance of above route, widen Broadway between Bloomfield Avenue and Seventh Avenue to 100 feet.

(c) City of Newark Improvements

(1) Widen and improve Lock Street between Sussex Avenue and Warren Street, including separation of grades at Central Avenue. (Consideration should be given to making this improvement a State Highway project).

(2) Widen Astor Street between Clinton and Sherman Avenues to 100 feet.

(3) Widen Springfield Avenue, from its junction with South Orange Avenue to Market Street, to 100 feet.

(4) Improve Raymond Boulevard between Lockwood Street and its intersection with Market Street by paving the right-of-way of the Morris Canal. (Plate No. 16).

(5) Secure necessary Legislation to permit the City to acquire property for parking lots and garages on reasonable lease-term basis. After Legislation is adopted, negotiate with private operators for construction of recommended lots and garages.

The following projects should be undertaken when funds are available.

(a) State Highway Improvements

(1) Construct Route 24 Freeway generally parallel to Springfield Avenue.

(2) Construct new high-level bridge to replace present Jackson Street Bridge.

(b) County Highway Improvements

(1) Complete north and south crosstown route composed of Belmont, Jones, Norfolk, Clifton, and Mt. Prospect by widening Belmont Avenue between Peddie Street and Watson Avenue to 80 feet.

(2) Widen South Orange from Ninth Street to Springfield Avenue to 80 feet.

(c) City of Newark Improvements

(1) Widen Mulberry Street, south from Market Street to McCarter Highway, to 100 feet.

(2) Widen Central Avenue from High Street to Broad Street to 80 feet.

(3) Provide a new 80 feet connection from Park Place and Centre Street to Mulberry Street.

(4) Connect Plane and Washington Streets between Court and Baldwin Streets.

(5) Widen High Street to 100 feet from Bloomfield Avenue to Orange St.

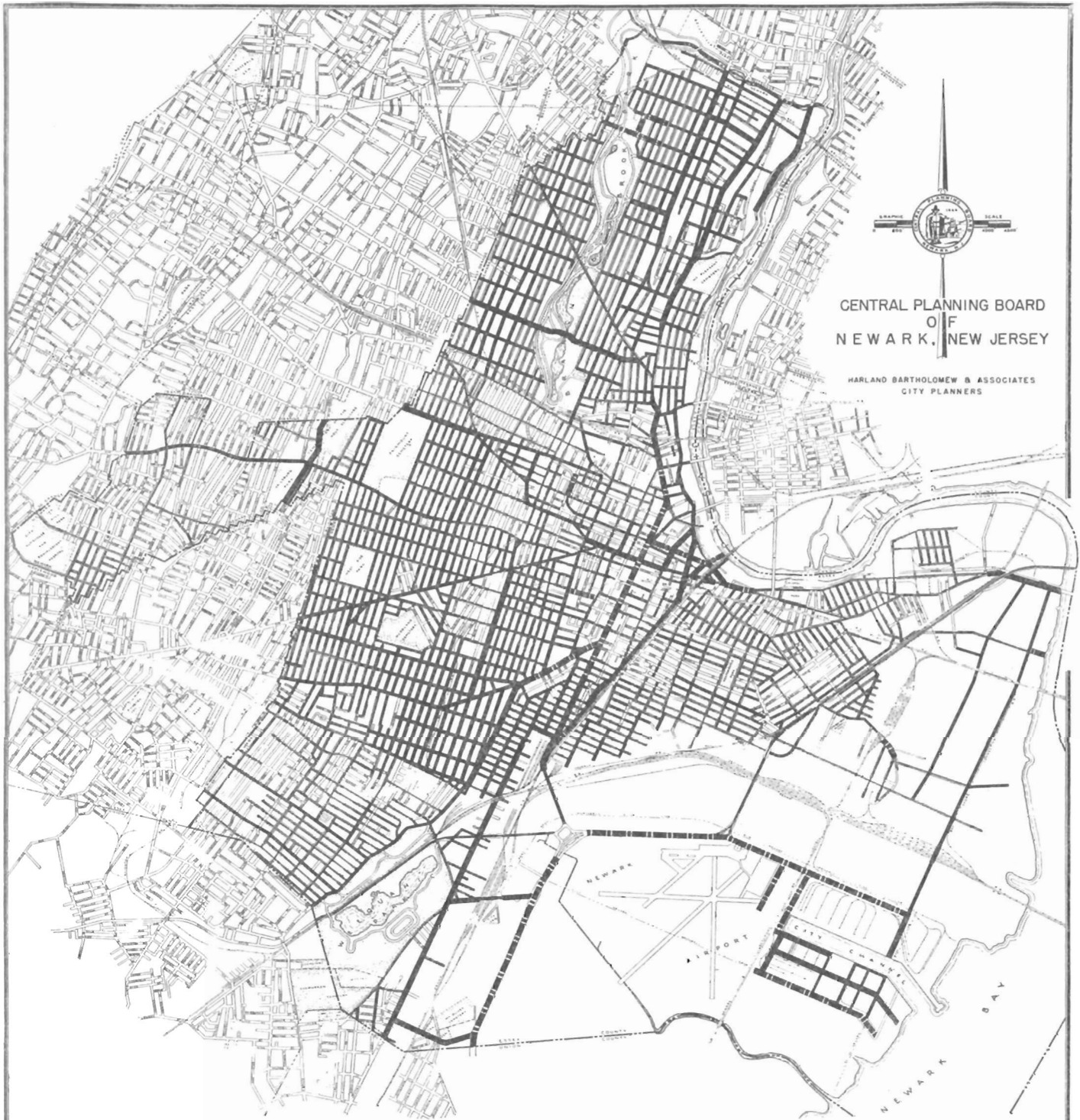
(6) Construct a highway over the Morris Canal from First Street to Heller Parkway.

(7) Construct a new connection 80 feet wide from the intersection of Pennsylvania Avenue, Brunswick, and South Streets to Clinton Avenue at Washington Street.

(8) Complete the improvement of Raymond Boulevard between Lockwood Street and Market Street by acquiring property between the Morris Canal and Raymond Boulevard for park purposes. (Plate No. 16).

Existing Streets

The Newark major street plan must be based on the existing street system.



CENTRAL PLANNING BOARD
OF
NEWARK, NEW JERSEY

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS

CITY OF NEWARK, NEW JERSEY EXISTING STREET WIDTHS

LEGEND

No. CARLS	WIDTH
10	110 +
8	90-109
6	70-89
4	51-69

INFORMATION FOR BASE MAP FURNISHED BY THE BUREAU OF
SURVEYS, DEPARTMENT OF PUBLIC WORKS, CITY OF NEWARK

COPYRIGHT 1944 BY THE
CENTRAL PLANNING BOARD OF NEWARK, NEW JERSEY

4-1-44

Street Width

At the present time, the streets and alleys of Newark occupy 2858.8 acres, or 18.9 percent of the total area of the City. Plate No. 9 is a picture of the existing street development and has been prepared to show the haphazard and unco-ordinated manner in which the system developed. The widths of existing streets are expressed in terms of traffic lanes that can be accommodated within their present rights-of-way. The width of bands is in general proportion to the width of the streets.

A glance at the map shows the relative absence of streets having a traffic capacity of eight or more lanes. There are a few streets having a capacity of 8 to 10 lanes of traffic, but, in many instances, these streets are isolated, and do not form an important part of the circulatory system. The City is fortunate in having a wide continuous thoroughfare such as Broad Street leading through the center of the business district, and other streets such as Clinton Avenue, Market Streets, and Raymond Boulevard which are capable of accommodating large volumes of traffic.

The lack of past planning is clearly shown in the inadequate width of most of the radial thoroughfares leading from the suburban areas to the central part of Newark. Bloomfield Avenue, Springfield Avenue, South Orange Avenue, and West Market Street are example of well located streets whose usefulness is much hampered because of inadequate width. There are several radial streets leading through the center of the City which have adequate width but do not connect with streets leading to the central business district.

The typical Newark block is 200 x 400 feet in size. The prevailing street width is 66 feet but, in many sections of the City, there seems to be no uniformity whatever. Generally speaking, the streets in the northern part of the City have more generous width than in

other sections, particularly the Ironbound, the Weequahic and the Vailsburg areas. In the newer part of the City it became generally customary to lay out streets having rights-of-way of 50 feet.

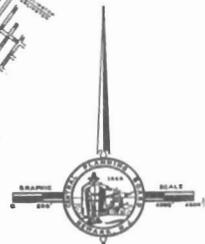
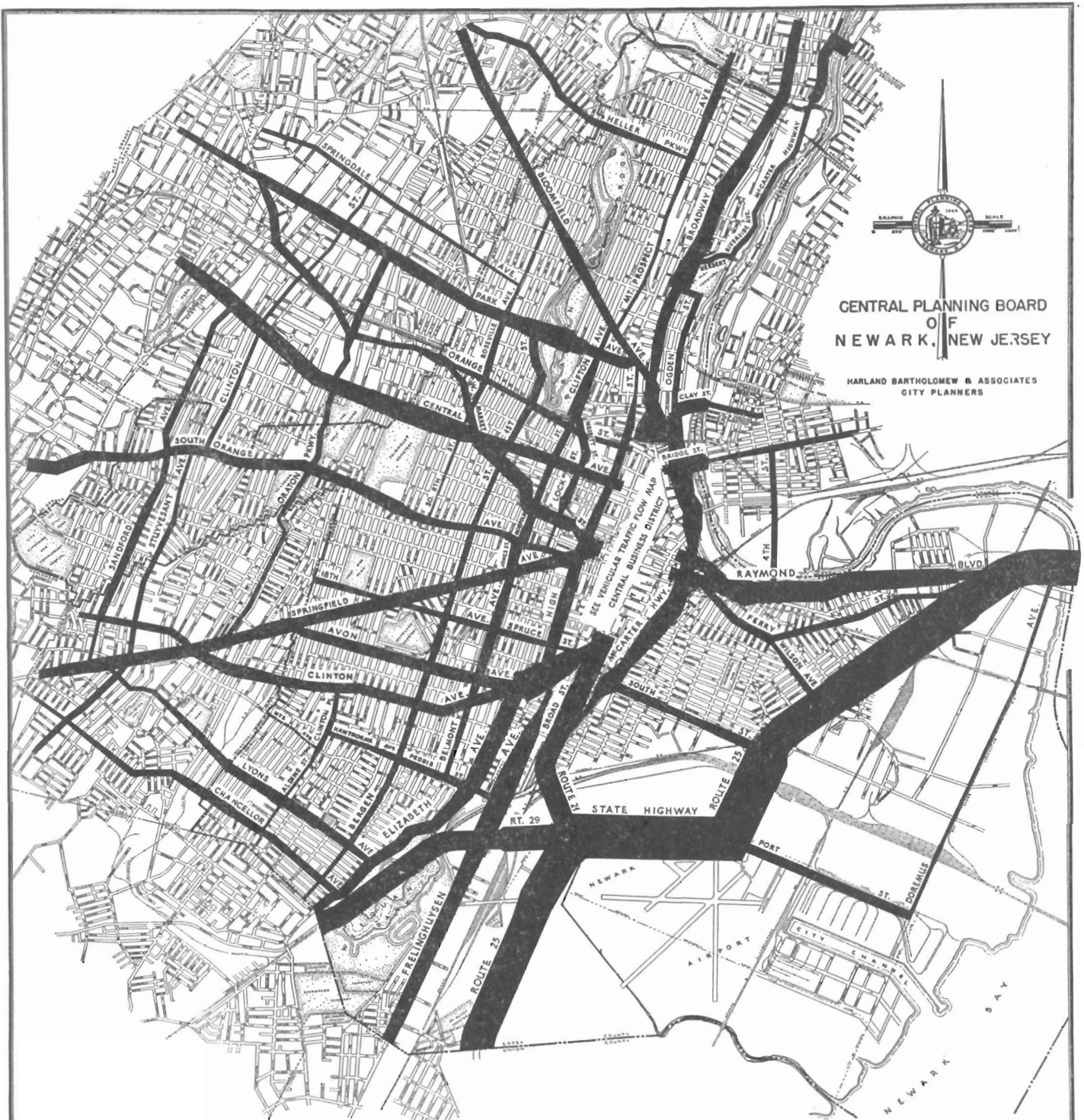
The drawing clearly shows the absence of adequate, continuous, and wide, north and south thoroughfares. This is a deficiency which must be remedied in the future.

Vehicular Traffic Flow in Newark

Plate No. 10 shows, graphically, vehicle and traffic flow which used the principal City streets in the years immediately preceding the War. The width of the bands on the drawing shows the total 12 hour (7 A.M. to 7 P.M.) week-day traffic.

The dominant traffic routes are shown to be State Highway 25 and State Highway 29, which skirt the southern and eastern edges of the City. Much of the traffic using these routes is enroute to New York and other eastern communities, and a large proportion of it is commercial trucking. The radial streets approaching the downtown area are heavily travelled, for example, Central Avenue accommodates approximately 20,000 vehicles per day, Park Avenue, Springfield, and South Orange Avenues, approximately 15,000 per day, while Broadway, Frelinghuysen, and Elizabeth Avenues, carry equal amounts.

Because of the congestion existing on Springfield Avenue, a substantial portion of the traffic bound for the central business district leaves that street and proceeds on Avon, Clinton, and Eighteenth Avenue to an eventual junction with Broad Street. Similarly, traffic entering the City over Park Avenue does not proceed over the most direct route, but disperses itself over several streets before reaching Bloomfield Avenue or Broad Street.



CENTRAL PLANNING BOARD
OF
NEWARK, NEW JERSEY

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS

CITY OF NEWARK, NEW JERSEY VEHICULAR TRAFFIC FLOW

LEGEND

VEHICULAR TRAFFIC FLOW



IN THOUSANDS OF CARS

DATA FROM STREET TRAFFIC SURVEY BY
DEPARTMENT OF PUBLIC SAFETY AND W.R.A.
AND FROM STATE HIGHWAY DEPARTMENT

INFORMATION FOR BASE MAP FURNISHED BY THE BUREAU OF
SURVEYS, DEPARTMENT OF PUBLIC WORKS, CITY OF NEWARK.

COPYRIGHT 1944 BY THE
CENTRAL PLANNING BOARD OF NEWARK, NEW JERSEY

NOTE:
COUNTS COVER 12 HOUR PERIOD, 7 A.M. TO 7 P.M.
ON WEEKDAYS DURING 1936 AND 1937

4-1-44

The drawing shows where bottlenecks now exist. For example, Frelinghuysen Avenue discharges traffic into Broad Street instead of carrying it straight on to a logical connection to Clinton Avenue. The Bloomfield Avenue bottleneck between Park Avenue and Broad Street also shows up clearly on the map, and the extremely inadequate width of High Street, south of Bloomfield Avenue, is clearly apparent.

The lack of adequate north and south thoroughfares is also shown on the drawing.

Vehicular Traffic Flow in the Newark Metropolitan Area

Plate No. 11 shows the 1941 volume of traffic flow on the principal State Highways within the Newark metropolitan area. The width of band represents the total number of vehicles using the Highway during an average 24-hour period.

In comparing this plate with Plate No. 10, it is important to remember that the traffic volume shown on the Newark Street System was for a 12-hour period.

State Highway 25 (Federal Highway No. 1) is one of the most heavily travelled thoroughfares in the Country. That portion of the Highway between the traffic interchange at the Newark Airport and the Pulaski Skyway carried approximately 70,000 vehicles during an average 24-hour period, before the War. On Sundays and holidays, this volume approaches 100,000 vehicles. Most of this traffic is bound to and from New York, and the Highway acts as a valuable by-pass, carrying this traffic around the outskirts of Newark.

After crossing the Passaic River, the major part of the traffic enters the Holland Tunnel, while a substantial portion continues north on State Highway 1, and disperses itself in northern New Jersey or crosses into New York over the Lincoln Tunnel or the George Washington Bridge.

Other State Highways which are largely used include State Highway 24 (Springfield Avenue), State Highway 23 and its continuation over Bloomfield Avenue and State Highways 6 and 3, which lie to the north of Newark. South Orange Avenue and Park Avenue, which lead to Newark from the western suburbs, are not State Highways, but they are of equal importance in the metropolitan highway system. It is interesting to note that Route 10 traffic, west of the City, is relatively light, ranging from 5,000 to 10,000 vehicles per day at its heaviest points. **This would indicate that there is not a pressing need for the extension of Route 10 as a by-pass around Newark for some time to come. It is of more importance to improve highway facilities leading directly to the center of Newark from the southwest, west and northwest. Additional by-passes should not be constructed until the highway needs of the urban area are adequately met.**

Principal Present and Proposed Regional Highways

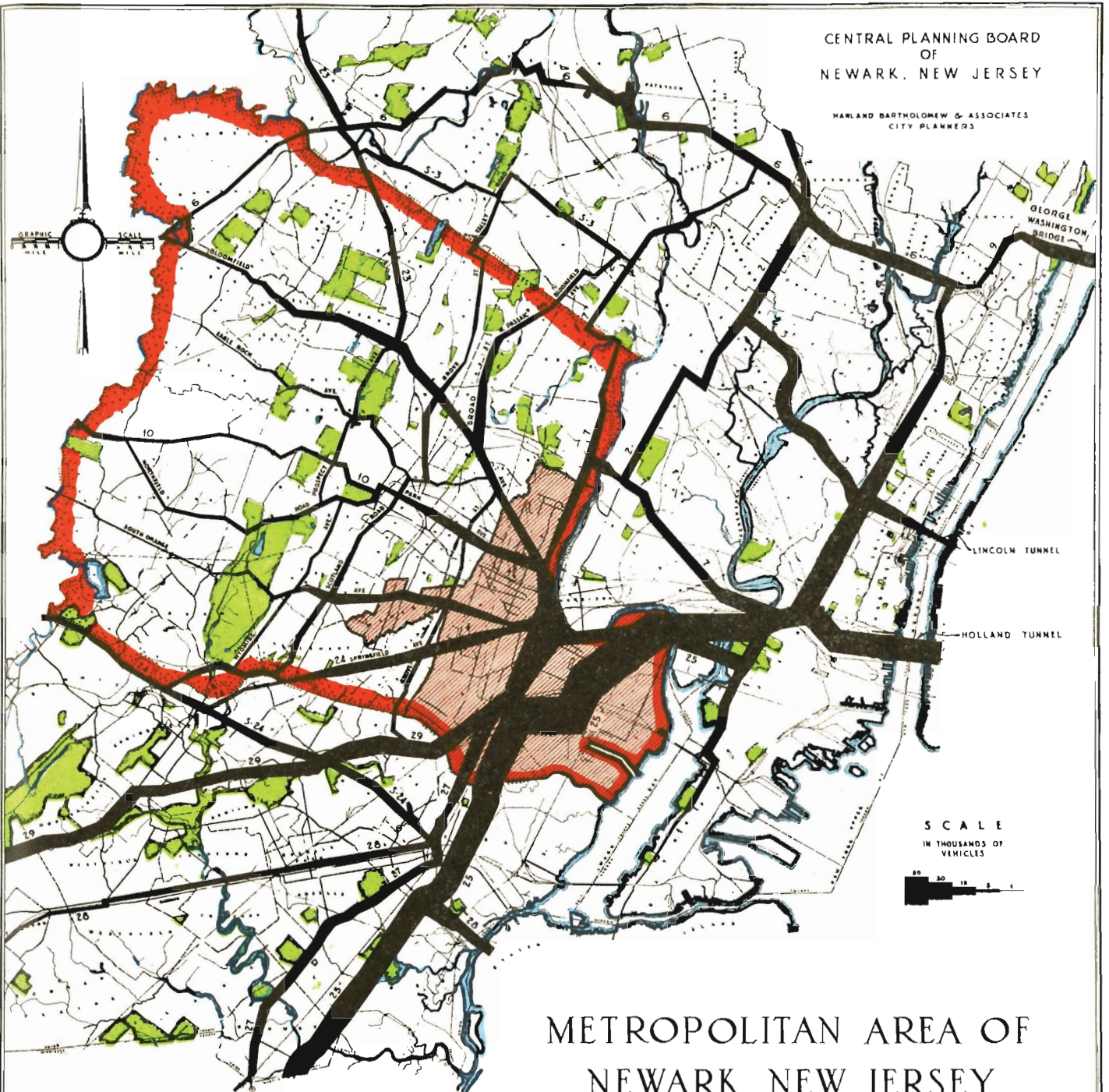
Plate No. 12 shows present State Highways and the proposed extensions and connections.

There are four highways in the Newark area which form a part of the National Interstate Highway System. There are State Routes 25, 29, 1, and 6. **In all cases these Highways by-pass Newark.** Route 29 and 25 lie to the south of the City and pass through the eastern industrial area. Route 1 parallels the Hudson River and is a continuation of Route 25. Route 6 lies to the north and connects directly with the George Washington Bridge.

The chief characteristic of the State Highway System in the Newark area is the lack of routes leading through the urbanized sections. It will be noted on examination of the drawing, that Route 23 terminates in Verona, Route 10 terminates in West Orange, Route 24 ends at the Essex County line, Route 27

CENTRAL PLANNING BOARD
OF
NEWARK, NEW JERSEY

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS



SCALE
IN THOUSANDS OF
VEHICLES



METROPOLITAN AREA OF NEWARK, NEW JERSEY TRAFFIC FLOW ON PRINCIPAL HIGHWAYS

WIDTH OF BAND REPRESENTS AVERAGE 24 HOUR TRAFFIC
VOLUME IN 1941.

NUMERALS INDICATE STATE HIGHWAY NUMBERS.

INFORMATION FOR BASE MAP FURNISHED BY THE
NEW JERSEY STATE HIGHWAY DEPARTMENT

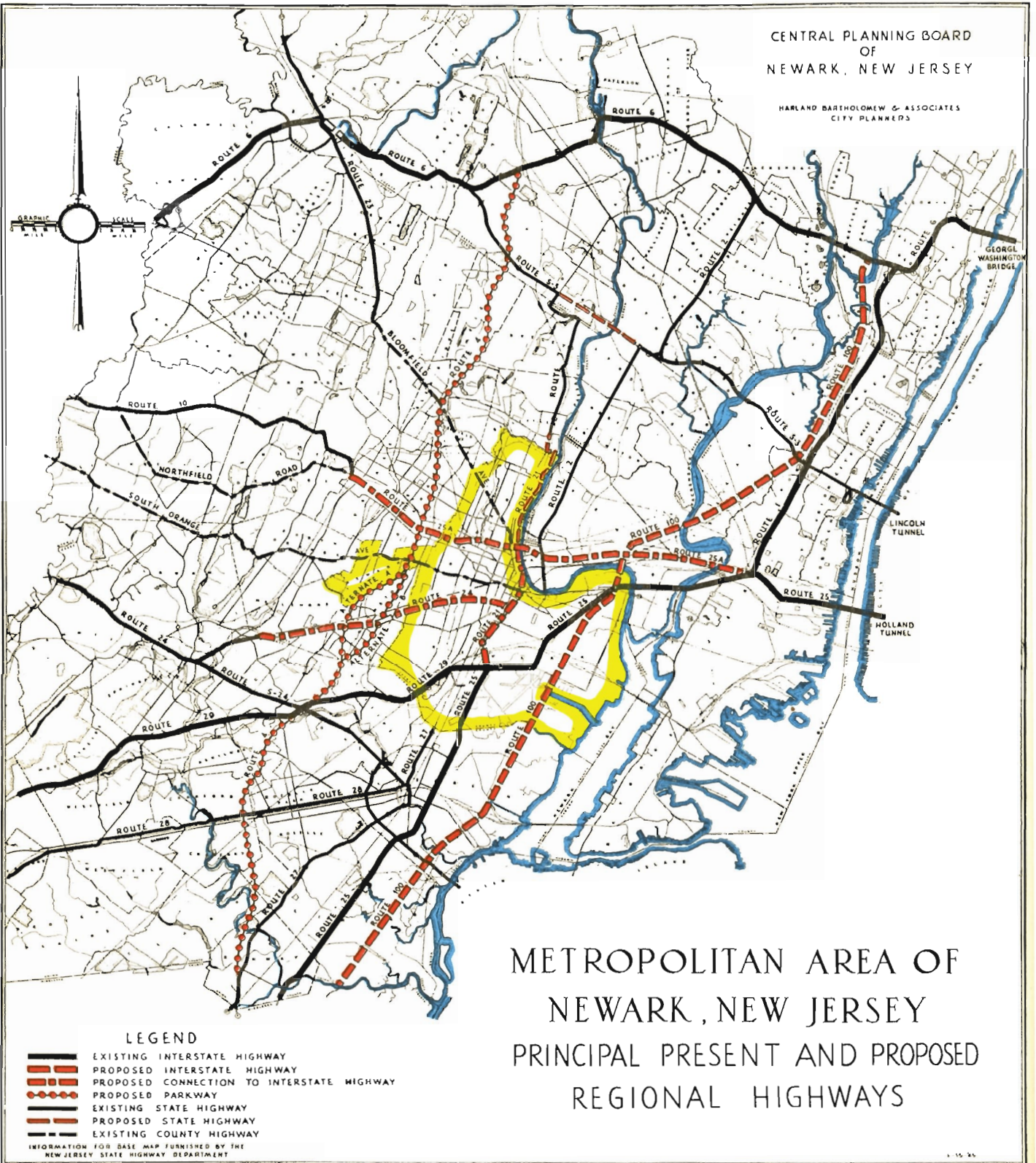
INFORMATION FROM NEW JERSEY HIGHWAY DEPARTMENT STATE-WIDE HIGHWAY PLANNING SURVEY.

1-13-41

Plate No. 11

CENTRAL PLANNING BOARD
OF
NEWARK, NEW JERSEY

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS



METROPOLITAN AREA OF NEWARK, NEW JERSEY PRINCIPAL PRESENT AND PROPOSED REGIONAL HIGHWAYS

Plate No. 12



CENTRAL PLANNING BOARD
OF
NEWARK, NEW JERSEY

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS

CITY OF NEWARK, NEW JERSEY MAJOR STREET PLAN

LEGEND

- EXISTING INTERSTATE HIGHWAYS
- PROPOSED INTERSTATE HIGHWAYS
- EXISTING CONNECTIONS TO INTERSTATE HIGHWAYS
- PROPOSED CONNECTIONS TO INTERSTATE HIGHWAYS
- EIGHT LANE MAJOR STREETS OF SUFFICIENT WIDTH
- MAJOR STREETS TO BE WIDENED TO EIGHT LANES

- SIX LANE MAJOR STREETS OF SUFFICIENT WIDTH
- MAJOR STREETS TO BE WIDENED TO SIX LANES
- PROPOSED CONNECTIONS SIX LANES WIDE
- FOUR LANE MAJOR STREETS OF SUFFICIENT WIDTH
- MAJOR STREETS TO BE WIDENED TO FOUR LANES
- PROPOSED TRAFFIC INTERCHANGE

INFORMATION FOR BASE MAP FURNISHED BY THE BUREAU OF
SURVEYS, DEPARTMENT OF PUBLIC WORKS, CITY OF NEWARK

COPYRIGHT 1941 BY THE
CENTRAL PLANNING BOARD OF NEWARK, NEW JERSEY

4 1 44

PLATE 11-13

ends at the Newark City limits, and Route 7 terminates at the northern corporate limits of the City. The only through routes which connects the suburban areas of Newark with the center of Newark are County Highways, such as Bloomfield Avenue and South Orange Avenue, or they consist of local city streets.

In order to remedy the above deficiencies, several new proposed State Highways are shown on the drawing. These are described in more detail subsequently.

Major Street Plan

The proposed Major Street Plan for Newark is shown on Plate No. 13. This is a long-range plan designed to be carried out over a period of from twenty-five to thirty years. Some of the improvements are of immediate importance and should be executed as soon as possible. Other improvements can be made from time to time in accordance with the long-range program of public improvements. The execution of this plan should not involve substantial cost to the City over and above what would be expended for street improvements in the ensuing years. This City will derive great advantages from co-ordinating its Street Improvement Program with the Major Street Plan as it is designed to eventually correct present deficiencies and provide essential facilities for future traffic.

The plan indicates where Local, State, and Federal funds should be expended in the Newark area to the greatest advantage of all. While Newark must provide funds for execution of the Street Improvement Program, it can, and should, receive substantial financial aid from Essex County, the State of New Jersey and the Federal Government. The traffic problems in Newark have more than a local significance as many of the main thoroughfares connect with the County and State Highway system, and there are numerous City streets which are on the County Highway or the State Highway system. The

plan, therefore, is a guide that can be utilized to insure the wise expenditure of highway improvement funds at all levels of government. It should be accepted and adopted by the State and County Highway officials, as well as by the City of Newark.

In developing this plan, it has been necessary to consider present and future highway needs of the entire Newark metropolitan area.

Whenever possible, existing streets have been used for the basis of the proposed system with new connections and extensions to provide better continuity and direction. Street widenings have been kept to a minimum consistent with future needs and where such improvements are recommended, these should be preceded by the establishment of new building lines. This procedure will reduce the eventual cost of property acquisition by insuring that all new buildings will not be disturbed by the street widening program.

A description of the comprehensive plan follows:-

Inter-State Highways:

Recent traffic counts have shown that the greatest problem of traffic congestion on Federal highways exists in our large urban communities. Newark, the largest City in New Jersey, is the objective of a large amount of traffic of neighborhood communities, other parts of New Jersey, and adjoining states. This traffic approaches the City over reasonably adequate State highways and then is forced to use the City street system to reach its destination. These city streets are encumbered by local traffic, by transit lines, and, in many instances, have inadequate width. As a result, the center of the City, where most of the retail shopping and general business is conducted, is extremely inaccessible. From all directions, fairly adequate facilities exist for by-passing traffic having no business in the City, but little progress has been made to facilitate the free movement of traf-

fic from various points within the Newark urbanized area. Modernization of this highway system is a tremendous task. It is the responsibility not only of the City of Newark and other local communities, but also of the County, State and Federal Governments.

In recognizing the urgent need for improvement of Federal Highways within metropolitan districts, Congress has recently made substantial funds available to be used by the various State Highway Departments in modernizing urban highway systems. It is the objective of this legislation to provide a nation-wide system of interstate highways connecting the centers of all principal cities. These connections are to be modern grade-separated highways, leading from the outskirts to the congested areas of our communities. It is proposed that these funds be expended on a relatively few such facilities, rather than in making expensive corrections by means of widening existing streets.

The streets comprising the interstate highway system are essentially freeways, designed to facilitate the free movement of traffic to and through large urban areas so that it will not conflict with local traffic and be subject to the delays and dangers now encountered on surface streets.

While the responsibility for the construction of interstate highways lies with the State Highway Department, the location and extent of such improvements are of vital concern to the local communities, and such planning should be a joint undertaking between the local planning officials and the appropriate County, State, and Federal Agencies.

In designing inter-state highways and their urban connections, access to such facilities should be restricted to relatively infrequent points where major streets or highways intersect the freeway. Such limitation of access may require either the creation of partially depressed or elevated thoroughfares with parallel local access roads. The alignments should be direct and curves and grades kept at a minimum. Intersections with present

cross-streets should be separated and connections made by some form of traffic interchange. Generally speaking, the construction of this type of facility can best be accomplished by acquiring an entirely new right-of-way of sufficient width rather than attempting to utilize existing streets or highways. In a built-up community like the Newark metropolitan area, acquisition of right-of-ways and construction cost will be high, but the expense can be justified by the benefits gained.

There are three existing inter-state highways in the Newark area:-

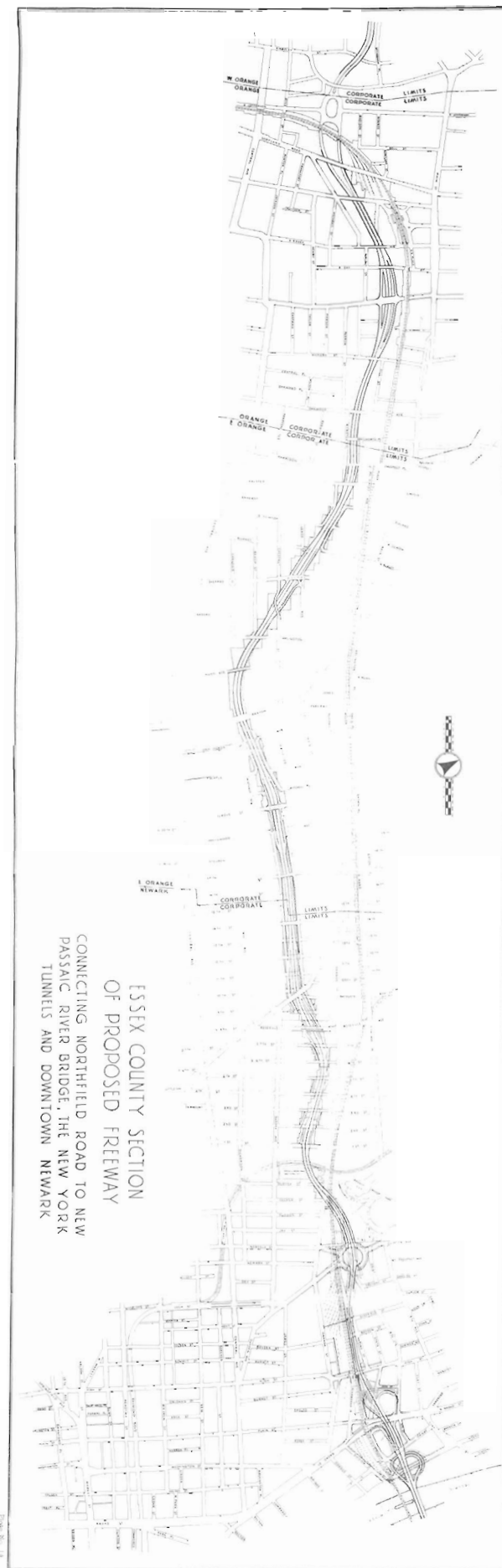
1. State Highway 25, which extends through the southern and eastern part of the City to the Pulaski Skyway, leading to the Holland Tunnel. This is essentially a by-pass route for through traffic along the Eastern Seaboard. Access to the City is provided at several points, such as Raymond Boulevard, Broad Street, and McCarter Highway.

2. State Highway 29 which is located south of the City and joins Highway 25 at an interchange near Newark Airport. This highway is also a by-pass leading traffic destined for New York from the west around the main part of the City.

3. State Highway 6, which is north of Newark and provides access to the George Washington Bridge and Lincoln Tunnel for traffic originating west and north of the City.

It is significant to note that none of the above three interstate highways connect directly with the center of Newark.

A fourth interstate highway is planned in the Newark area to relieve Highway 25. The proposed new highway is known as State Highway 100 and is planned to run parallel to Route 25 from the southern part of the State through Newark. This new highway will conform to interstate highway standards and is planned to connect with the Lincoln Tunnel. It would cross the Newark Mear-



dows between the Airport and the Seaport, and would connect with a proposed interchange structure in the Kearny meadows, north of the Passaic River.

The principal need in Newark for new highways is adequate connections to the system of interstate highways described above. Before more by-passes are constructed, facilities should be provided for traffic to reach the center of the City in a free and expeditious manner. To accomplish this purpose, the plan provides for two future freeways:-

1. The first of these proposed highways consists of the extension of Route 25-A from the proposed new William A. Stickel Memorial Bridge across the Passaic River to a connection with Northfield Road in West Orange. (Plate No. 14). This is one of the most important improvements proposed in the Major Street Plan, and its early construction by the State Highway Department is urgently needed.

2. A somewhat similar facility is planned in the southeastern part of the City for traffic interchange between downtown Newark and the southwestern suburbs, such as Irvington, Maplewood, Millburn, Summit, Springfield, etc. No attempt has been made to recommend a definite location for this proposed freeway, but it generally should parallel Springfield Avenue (State Route 24) from a point in Maplewood to a point near Bergen Street where it would proceed in an easterly direction, parallel to Kinney Street, to a connection with McCarter Highway. This proposed facility would be a grade separated thoroughfare, partially elevated and partially depressed, depending on the topography. Connections to the freeway should be provided at points where crosstown major thoroughfares intersect.

There are two other highway routes which are classified as connections to the interstate highway system:-

1. McCarter Highway, when completed,

will extend along the Passaic River from the north to a connection with Route 25-A at the new bridge and to Route 29 and Route 25 at the Newark Airport interchange. This improvement will not be in the form of a freeway but will be on the surface except for that portion which is elevated over the Pennsylvania Railroad tracks south of Poinier Street. Part of the Highway has already been constructed by the State Highway Department, and its completion is scheduled for an early date. The proposed improvement includes the widening of the Highway north of the City.

2. The other connection to the interstate system is the proposed Route 4 Parkway, extending from the southern part of the State, through Newark to Route 6, north of the City. Although definite location for this Highway has not yet been determined, Oraton Parkway is suggested as the most desirable from Newark's standpoint.

Radial Routes:

1. Frelinghuysen Avenue - Astor Street.

This route enters Newark from Elizabeth with connections from Newark Avenue or State Highway 27 in that City. Frelinghuysen Avenue has a capacity of 8 lanes of traffic from the City limits to Alpine Street. Between Alpine Street and Sherman Avenue the present width is 75 feet or 6 lanes. Building lines should be established along this portion of the street for its eventual widening to 100 feet. Frelinghuysen Avenue now terminates at Sherman Avenue. Astor Street, which connects Frelinghuysen Avenue with High Street, is a narrow one-way South 50-foot wide street. The corner of Clinton Avenue and Astor Street should be cut back to straighten out the offset now existing at High Street, and Astor Street should be widened to 100 feet between Clinton and Sherman Avenues.

2. **Elizabeth Avenue.** This thoroughfare enters Newark from the south, connecting

from Broad Street in Hillside. It now has a capacity for 8 lanes of traffic between the City limits and Clinton Avenue. No widening of this thoroughfare is required.

3. Broad Street - Broadway. This is one of the most important radial routes of the City because it leads directly to the heart of the business district, both, from the north and the south. Beginning at a connection with Highways No. 29 and No. 25 on the south, Broad Street extends northward to Broadway which connects with Washington Avenue in Belleville. Fortunately, when Broad Street was laid out, it was given a generous width, and no widening is necessary. Moreover, except for a relatively short distance, Broadway also has adequate width, but between Seventh Avenue and Clark Street the width decreases from 100 feet to 66 feet, and between Clark Street and Fourth Avenue it also is only 66 feet, or 4 lanes in width. Between Fourth Avenue and Taylor Street, the width varies from 66 feet to 100 feet. Building lines should be established on Broadway between Bloomfield Avenue and Taylor Street for an eventual widening to 100 feet. Between Bloomfield Avenue and Seventh Avenue, a serious bottleneck exists, which should be eliminated at the same time Bloomfield Avenue is widened. Broadway is a County Highway, north of Bloomfield Avenue, and that portion between Bloomfield Avenue and Broad Street should be taken over by the County so that the contemplated widening of Bloomfield Avenue and widening of Broadway from Bloomfield Avenue to Seventh Avenue could be carried out in one operation.

5. Springfield Avenue. This is one of the most important entries into the City, as it connects with State Highway Route 24 and leads to the suburban communities of Irvington, Maplewood, Summit, Springfield, Millburn, and others. In Irvington, Springfield Avenue is a County Highway. From the Newark City limits to Morris Avenue, the street has a right-of-way width of 85 feet. From Morris Avenue to South Orange Ave-

nue, it is only 66 feet wide and can accommodate only 4 lanes of traffic. The construction of the proposed Route 24 Freeway will obviate the necessity of widening Springfield Avenue which would be an extremely expensive operation as the frontage is almost completely developed with business property built out to the street lines. From the point of junction with South Orange Avenue to Market Street, a serious bottle neck exists which should be eliminated, regardless of whether the proposed Freeway is constructed or not. This portion of the street should be widened from 66 feet to 100 feet. Building lines should be established between Morris Avenue and South Orange Avenue to provide for a future 80 feet width.

6. South Orange Avenue. Leading directly to the heart of Newark from the west, South Orange Avenue is a highly important entry. Fortunately, it has a width of 80 feet or 6 lanes from the City limits to Ninth Street, but east of Ninth Street the width decreases to 66 feet and in some places to 60 feet. While this portion of the street need not be immediately widened, building lines should be established from Littleton Avenue to Springfield Avenue to provide for an eventual 80 foot right-of-way width. South Orange Avenue is a County Highway, throughout its length, except for a short portion extending through South Mountain Reservation, which is under control of the Essex County Park Commission.

7. Central Avenue - Park Place - Center Street. Central Avenue provides a direct route from the Oranges to the Newark business district, and its location makes it one of the most strategic radial routes in the area. The street is a County Highway from High Street west, and it has a 6 lane capacity from that point westward. Unfortunately, between High Street and Broad Street there is only a 4 lane capacity, and, as this street acts as a distributor for traffic in and out of the business district, it is important that more capacity be provided between High and Broad Streets. It is recommended that a

building line be established along the north side of Central Avenue to provide the eventual widening of the thoroughfare to 80 feet west of Broad Street. Park Place and Center Street form a part of this route connecting with Mulberry Street. The present intersection of Center Street, Mulberry Street, and McCarter Highway create a dangerous situation because of the multiplicity of conflicting traffic movements through the intersection. It is proposed to remedy this situation by providing a new connection between Center Street and Mulberry Street to the south of the present intersection.

8. West Market Street and Market Street.

West Market Street and Market Street connect to make a diagonal thoroughfare leading from Orange Street near the East Orange line directly to the heart of the Newark business section and to Raymond Boulevard at a point east of the Pennsylvania Railroad. The route varies greatly in width ranging from 66 feet to 99 feet. New building lines should be established along West Market Street and Market Street to provide for eventual widenings to 80 feet where necessary.

9. Orange Street. Orange Street in Newark and Main Street in East Orange and Orange are important thoroughfares which vary in width, but in Newark they have a 4-lane capacity from the City limits to Broad Street. In view of the fact that this thoroughfare parallels the proposed Route 25-A Freeway, no widening will be necessary.

10. Bloomfield Avenue. This is a very strategically located diagonal route connecting Newark with the northwestern suburbs of Montclair, Verona, and other communities. Its continuation northwest from Verona is State Highway 23. It is presently a County Highway throughout its entire length. The early widening of this street of its present width from 66 feet to 100 feet is advisable, and plans are now under way, by Essex County, to make this improvement.

11. Raymond Boulevard - Lock Street - Nesbitt Street. The improvement of Raymond

Boulevard a few years ago opened up an entry to the business district from the west. Unfortunately, the improvement was not carried beyond Lock Street, and there are no adequate connections from that point to the west and north. Nesbitt Street was widened at the time the Newark Housing Authority developed the James Baxter Terrace Housing project, and the City has acquired some property for the widening of Lock Street between Newark Street and Central Avenue. It is proposed to make Raymond Boulevard a continuous high speed traffic route from the Clifton Avenue traffic interchange to be constructed as part of the Route 25-A Freeway. This improvement involves the completion of the widening of Lock Street from Sussex Avenue to New Street and the separation of grades at Central Avenue by means of an over-pass on Lock Street at that location. This improvement would open a direct entry to the center of the Newark business district from the western suburban communities (See Plate No. 14).

Raymond Boulevard is the principal entry to the center of the City from the east, and a connection to the Pulaski Skyway provides direct access to the Holland Tunnel. It is proposed to improve this part of Raymond Boulevard by utilizing the old bed of the Morris Canal as an additional roadway between Lockwood Street and the point where Raymond Boulevard and Market Street merge. In addition to providing future needed traffic capacity, this improvement would create an attractive entrance to Newark from the east, as it would be combined with the improvement of the river front along a portion of the route (See Plate 15). Another situation which needs correction is the connection to the Pulaski Skyway for eastbound traffic entering from Raymond Boulevard and Ferry Street. This traffic now uses Foundry Street and crosses under the Pennsylvania Railroad by means of a very narrow under-pass.

12. Wilson Avenue. Wilson Avenue extends from Doremus Avenue near Port Newark to a connection with Ferry Street at

Pulaski Street. There is a great deal of heavy industrial traffic on this street, and its present width of 66 feet should eventually be increased to 80 feet.

13. Ferry Street. This street parallels Raymond Boulevard through the Ironbound Section, and it has a present width of 66 feet except between McWhorter and Market Streets where it widens to 80 feet. Building lines should be established from Raymond Boulevard to McWhorter Street to provide for an eventual widening to 80 feet.

East-West Crosstown Routes

1. Chancellor Avenue. This street extends in an east and west direction from Springfield Avenue in Maplewood to Elizabeth Avenue in Newark. The entire street is a County Highway, and, in Newark, it has a right-of-way width of 80 feet. No widening is necessary.

2. Nye Avenue - Watson Avenue - New Connections - Meeker Avenue. This route is designed to furnish east and west crosstown service to Frelinghuysen Avenue and Route 29 through the southern part of the City and from points west and southwest of the City. The route is not continuous at the present time, and two new 80 foot connections will be necessary to make it complete. One of these connections is from the present terminus of Nye Avenue at Seymour Avenue to a connection with Watson Avenue at Bergen Street. The other new connection is between Watson Avenue and Meeker Avenue extending from Ridgewood Avenue to Elizabeth Avenue. The streets comprising this route vary in width from 60 feet to 66 feet, and new building lines should be established for eventual widening to 80 feet.

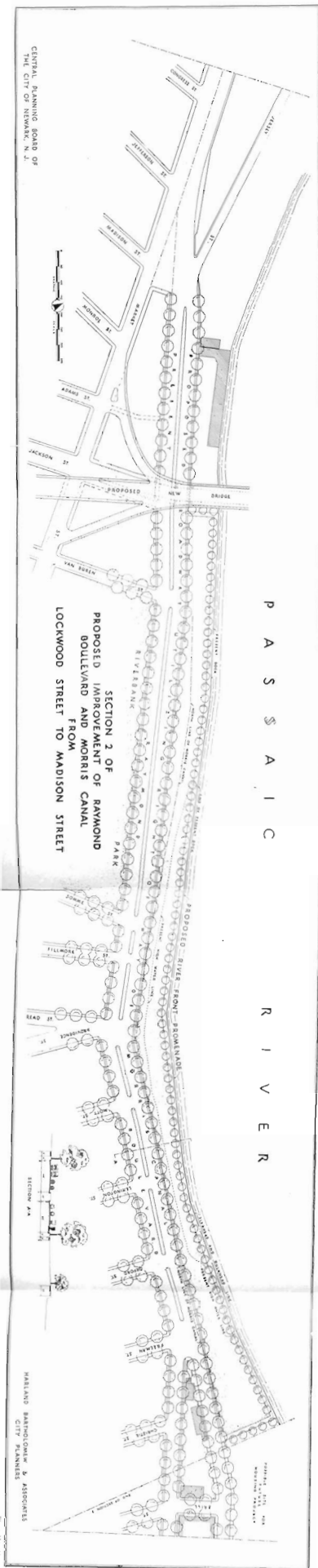
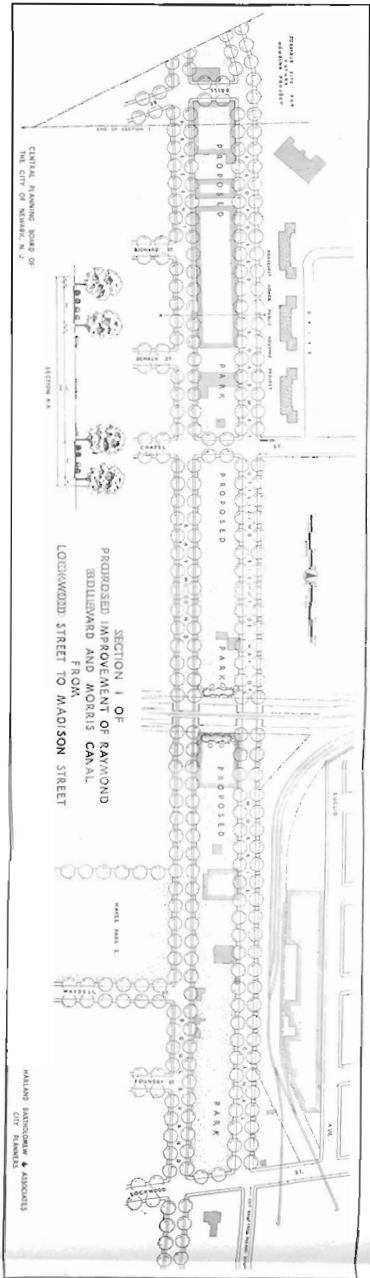
3. Avon Avenue. Avon Avenue lies between Clinton Avenue and Springfield Avenue, and it extends from Springfield Avenue to a connection with Clinton Avenue at Elizabeth Avenue. The street now has a right-of-way width of 80 feet, which is sufficient.

3. Park Avenue - Crittenden Street. Park Avenue is a 100 foot thoroughfare most of it being under the control of the Essex County Park Commission. From Main Street West Orange to Lake Street in Newark, no commercial traffic is permitted, but it is intensively used by passenger vehicles. The street has a restricted capacity because of the wide grass plots and tree planting spaces, and the stopping and parking of automobiles along the travelled roadway. Park Avenue now terminates at Bloomfield Avenue, but there is considerable traffic between that point and Broadway utilizing Crittenden Street. This is, at present, a narrow thoroughfare, which should be widened to 80 feet between Bloomfield Avenue and Broadway. Park Avenue is a County Highway from Lake Street to Bloomfield Avenue.

5. Second Avenue. Second Avenue furnishes a connection to Rutledge Avenue in East Orange and its eventual extension to Springdale Avenue. Second Avenue now terminates at Third Street in Newark, and there should be a better connection afforded Bloomfield Avenue at this point. This can be done by cutting back the northwest corner of Second Avenue and Third Street. Second Avenue continues on the east side from Branch Brook Park to Broadway, and because of its connection with the park drives it carries much traffic. Its present width of 66 feet requires no increase.

6. Heller Parkway. Heller Parkway extends from Summer Avenue westward across Branch Brook Park, connecting with Franklin Street in Bloomfield. From the City limits to Forest Hill Parkway, the right-of-way is 80 feet and from Forest Hill Parkway to Highland Avenue, 150 feet. From Highland Avenue to Mt. Prospect Avenue, the right-of-way is 80 feet. No widening is required.

7. South Street - Delancey Street. These two streets constitute one of the most important crosstown routes in the eastern part of the City. Inasmuch as there is a large amount of commercial and industrial traffic



using the streets, the present width of 60 and 66 feet should be increased to 80 feet by establishing new building lines for future widening. South Street now terminates at Pennsylvania Avenue, where it intersects Brunswick Street. In order to reach Clinton Avenue, the traffic is forced to use a rather narrow and discontinuous street in this area. It is recommended that a new connection 80 feet in width be provided from the intersection of Pennsylvania Avenue, Brunswick Street and South Street to Clinton Avenue at Washington Street.

North-South Crosstown Streets

1. Belmont Avenue, Jones Street, Norfolk Street, Clifton Avenue, Mt. Prospect Avenue. Potentially, this is one of the most important highway routes in Newark. It extends continuously almost across the entire width of the City, connecting Belleville on the north to Elizabeth Avenue, near Weequahic Park. Parts of the streets comprising this route have already sufficient width, but there are certain other improvements that should be made in the near future. Clifton Avenue extends from Orange Street to Verona Avenue, where it dead-ends. It is highly desirable to connect Clifton Avenue with Mt. Prospect Avenue at Bloomfield Avenue in order to remove heavy traffic from the residential section along Clifton Avenue in Forest Hill and provide a continuous route to Belleville. This improvement should be made at the same time Bloomfield Avenue is widened, and the entire route should be turned over to Essex County for improvement as a County Highway. No widening is needed from the north City limits to Orange Street, as the existing right-of-way now is from 75 to 100 feet. Norfolk Street, between South Orange Avenue and Orange Street, should be widened to 80 feet. Jones Street and Belmont Avenue, between South Orange Avenue and West Peddie Street, now have a width sufficient to accommodate 6 lanes of traffic, and no widening is necessary. 80 feet building lines should be established on Belmont Ave-

nue between Peddie Street and Watson Avenue where Belmont Avenue will connect with the proposed new connection between Watson and Meeker Avenues described previously.

2. Bergen Street, First Street, Proposed Highway over the Morris Canal, Franklin Street. This route will provide a continuous north and south highway from Belleville to Hillside, in addition to acting as a crosstown route. Utilization of the Morris Canal right-of-way along the west side of Branch Brook Park will provide a high speed highway intersecting streets entering Newark from the north and northwest, and it will enable traffic to reach the center of the City with a minimum of interference from cross movements. It is proposed to construct a roadway having a capacity of 6 lanes over the subway right-of-way from the present terminus of First Street near Seventh Avenue to Heller Parkway, where a new connection would be built to Franklin Street. Access to this proposed Highway would be provided at Park Avenue, Bloomfield Avenue and Heller Parkway, and it should be paralleled by a local service along the west side of the highway. The carrying out of this improvement would encourage the development of stagnant and rundown property near the highway, thus adding greatly to the taxable values in this vicinity. Most of the route south of Seventh Avenue has a capacity of 4 lanes, but from Lyons Avenue to Renner Avenue, Bergen Street is 80 feet wide and from Hawthorne Avenue to Waverly Avenue it is 70 feet wide. No widening will be required along these sections, but building lines should be established along the rest of the route to provide an eventual 80 foot width.

3. High Street. High Street acts as a north and south crosstown route from Bloomfield Avenue to Clinton Avenue; this street also serves as a by-pass around the central business district. Because of its strategic location, the street should have an eventual capacity of 8 lanes of traffic. At present, the street has sufficient width between Mercer Street and

Clinton Avenue, but new 100 foot building lines should be established along the remainder of the thoroughfare. That portion of the street from Bloomfield Avenue to the Lackawanna Railroad should be widened in connection with a proposed redevelopment project.

4. South Eight Street, Roseville Avenue.

Roseville Avenue is an important crosstown street connecting Bloomfield Avenue with West Market Street. The present width is sufficient to accommodate 6 lanes of traffic, and no widening is needed. South Eight Street, which is a continuation of Roseville Avenue, extends southward from West Market Street to South Orange Avenue, where it dead-ends. It has a present capacity of 4 lanes between South Orange Avenue and Central Avenue which is sufficient, but building lines should be established along the block between Central Avenue and Ninth Avenue, where Eighth Street joins Roseville Avenue.

5. Aldine Street, Clinton Place, South Thirteenth Street, New Connection, South Twelfth Street. This route extends from the southern City limits to West Market Street, but that portion of Twelfth Street between Central Avenue and West Market Street is not designated as a major thoroughfare. The streets comprising the route vary in width from 50 feet to 60 feet and 80 feet. Building lines should be established along the entire route. A new connection is needed between South Thirteenth Street where it terminates at Woodland Avenue and South Twelfth Street in the block just south of Springfield Avenue.

6. Grove Street. Grove Street is an important north and south County Highway, a comparatively short portion of which exists, in Newark. Its present right-of-way width of 50 feet should be increased to 80 feet by establishing new building lines along that portion of the thoroughfare which lies in Newark.

7. Alexander Street. Alexander Street in Newark is a connecting link between a proposed crosstown route through East Orange and Irvington. The street connects with Valley Street and Orange Avenue in Irvington and to Hillcrest Terrace in East Orange. Its present width of 50 feet will accommodate 4 lanes of traffic but 60 foot building lines should be established for eventual widening.

8. Sanford Avenue. Sanford Avenue is a County Highway having a present width of 60 feet and 66 feet in Newark. It is part of a proposed crosstown route through East Orange, Newark, and Irvington, extending to Springfield Avenue. 80 foot building lines should be established along that portion of the thoroughfare in Newark.

9. Pulaski Street - Merchant Street. Pulaski Street is a north and south crosstown route connecting Lafayette Street with South Street through the Ironbound section. The present capacity of 4 lanes is sufficient. Pulaski Street connects with Merchant Street at Lafayette Street which intersects Wilson Avenue and Ferry Street.

Miscellaneous Improvements

1. New High Level Bridge replacing Jackson Street Bridge. The present Jackson Street Bridge is a low level structure which has reached an age where its maintenance is costly. Eventually it should be replaced by a high level bridge which will connect Fourth Street in Harrison with Wilson Avenue in Newark. This structure should extend over Raymond Boulevard, Market Street, the Central Railroad of New Jersey and come to grade in the vicinity of the intersection of Market Street, Wilson Avenue, and Merchant Street (See Plate 15).

Central Business District

The importance of providing adequate vehicular access and parking facilities in

TABLE 10

*Existing Off-Street Parking Facilities
In The Central Business District*

Zone No. (1)	NUMBER OF CAR SPACES PROVIDED				
	Public Parking Lots	Public Parking Garages	Private Parking Lots (2)	Private Parking Garages (2)	Total
1	255	0	10	0	265
2	757	525	0	0	1,282
3	1,499	765	59	65	2,388
4	2,520	815	387	26	2,748
5	1,054	239	664	368	2,325
Totals	6,085	2,344	1,120	459	10,008

(1) Zone No. 1 is area within 1,000 feet walking distance of Broad and Market Streets. Each succeeding zone is an additional 500 feet.

(2) Private parking lots and garages are those provided for employees only and in which the general public is excluded.

the Newark Central Business District cannot be over-emphasized. The area has more significance than a place where shopping is done and business is transacted. It is a major source of tax revenues, and the City's financial welfare depends, to a large extent, on the strength and stability of downtown business values.

The prosperity of the Newark business district is dependent, not only on trade engendered within the corporate limits, but also upon that coming from the suburban areas. Unless it is possible for persons to reach the center of the City conveniently, and, after arriving there, find a place to park near where their business is to be transacted, these persons will patronize other more accessible shopping centers and, eventually, there will be a decline in values within the central business areas. In order to protect the large investments now present in downtown Newark, the City is justified in expending relatively large sums for improvements. In the long run, it will be cheaper to do this than to suffer the inevitable blight and loss in values that will occur if a policy of laissez-faire is followed.

As shown by Table 10, there are a total of 10,008 car spaces provided in off-street public and private parking lots and garages in downtown Newark.

Curb Parking Facilities

Table 11 is a summary of the available curb parking spaces, differentiating between those in unrestricted areas, one-half and one hour metered areas, and one hour unmetered areas. It is interesting to note that no parking is permitted on more than fifty per cent of the total curb frontage.

There is a total of 15,136 car spaces provided both in off-street and curb parking facilities. Total estimated daily capacity of all spaces is as follows:

Type of Space	Space Available	Estimated 8-Hour Capacity
One Hour metered	1,157	5,785
One-half hour unmetered	19	160
One Hour unmetered	2,557	10,228
Unrestricted	1,274	1,500
Garages	2,803	4,200
Parking Lots	7,205	10,807
Other curb parking	121	250
	<hr/> 15,136	<hr/> 32,930

The estimated 8-hour capacity is approximately 25 per cent of the number of vehicles entering the business district daily. While there is no data available on the number of cars entering the area that go on through and do not wish to park, it is believed that approximately 50 per cent, or 50,000 of these vehicles, would park if spaces were available. This indicates a serious deficiency in parking space, which will become worse as traffic increases in the postwar years.

Future Parking Space Requirements

Table 12 is a comparison of parking facilities provided in 10 large American cities, including Newark. Existing car spaces per 1,000 population of the city vary from 9.3 in Chicago to 58.5 in Dallas. Car spaces per 1,000 population in the metropolitan area, range from 7.0 in Chicago to 45.8 in Dallas. Newark compares favorably with the other cities from the standpoint of car spaces per 1,000 city population, being excelled only by Dallas and San Francisco. Newark is deficient in comparing car spaces per 1,000 population in the metropolitan area, and is exceeded by Cleveland, Dallas, Detroit, Los Angeles, San Francisco, and Saint Louis. It will be noted that cities having rapid transit have reduced need for parking facilities. These cities include Boston, Chicago, and Philadelphia. If these cities are excluded, the parking space provided in Newark, in relation to the City's population, is almost the same as the average of the group (35.4

TABLE 11

*Existing Curb Parking Facilities
in the Central Business District
Newark, New Jersey*

Zone No.	NUMBER OF CAR SPACES PROVIDED					
	Unrestricted Parking	One-Hour Metered Parking	One-Half Hour Unmetered Parking	One-Hour Unmetered Parking	Other Parking	Total
1	5	151	18	16	—	190
2	7	259	1	70	4	341
3	71	246	—	221	9	547
4	196	243	—	531	27	997
5	995	258	—	1,719	81	3,053
Total	1,274	1,157	19	2,557	121	5,128

Note: There is a total of 223,801 lineal feet of curb parking space in the central business district of which there are 120,796 lineal feet where no parking is permitted at any time.

in Newark, compared to the 34.6 average). If these cities are also excluded from the metropolitan area population comparison, Newark falls far short of the average of the other cities (12.1 in Newark, compared to 22.2 average).

Obviously, it is impossible to apply standards of other cities to Newark in determining the future parking needs, but it is significant that most of the cities which provide more parking space in comparison to their population than does Newark, consider their facilities inadequate and are making plans to materially increase them.

Assuming that parking requirements have some relationship to future population and to the future number of motor vehicles, a check can be made on the desirable goal to aim for in the future. Table 13 is a summary of the estimated future population of the Newark metropolitan area and the future expected motor vehicle registration in the metropolitan area.

From Table 13 it is seen that the population of the Newark metropolitan area is expected to increase from its 1940 population 1,249,000 to 1,603,000 in 1970. This is an increase of 28.4 per cent. Automobile registration is expected to increase more rapidly, i.e., from 354,000 in 1940 to 533,000 in 1970, an increase of 50.5 per cent. *As the annual mileage per automobile is also increasing, the use of streets for vehicular transportation and the demand for parking space will be materially higher than indicated in the Table. To provide street and parking facilities for such an increase will be a serious public responsibility.*

The estimated future number of car space needed in the Newark Central Business District is shown on Table 13. These spaces are broken down into garages, parking lots, and curb parking. The greatest need is for garage parking, primarily, for the shopping public. It is estimated the present facilities should be increased from 2,803 to 8,650 in 1970. Parking lots to accommodate both shoppers

and all-day parkers should be increased from 7,205 spaces to 12,000 spaces in 1970, while curb parking spaces are assumed to be reduced in number as additional "No Parking" restrictions are placed on the streets.

Proposed Street Improvement and Parking Plan

A recommended long-range plan of street improvement and off-street parking facilities is shown on Plate No. 16.

In considering the relationship of the major street plan to the Central Business District, there are three factors which must be given consideration.

First is the necessity for providing wide and convenient entries to the district from all parts of the residential areas in and near the City. The second factor is that of moving traffic conveniently throughout the central area. Where facilities are available to distribute this traffic evenly and expeditiously, congestion is avoided. Third, there must be ample and conveniently located terminal facilities for automobiles having business within the area. Failure to give proper consideration to all the above factors must inevitably result in a shifting of values and a movement of business to other locations. Traffic movements and parking are closely inter-related as failure to find a parking space necessitates additional movements which add to the congestion already present.

Another important factor to consider in planning the central area is that of mass transportation. In a city the size of Newark, a great many people enter the business district by way of street car or bus, to work or shop. The transit lines should run directly and quickly from the residential areas to the business district, so that they will encourage additional riding and result in reducing vehicular congestion. Insofar as possible,

TABLE 12

***Analysis of Existing Parking Facilities
in the Central Business District
of Ten Large American Cities***

		Population 1940		Number of Existing Parking Spaces				Existing Parking Spaces per 1,000 Population	
		City	Metropolitan Area	Garages	Lots	Curb	Total	City	Metropolitan Area
1	Newark	429,760	1,249,000 (1)	2,803 (3)	7,205(4)	5,128	15,136	35.4	12.1
2	Boston	770,816	2,350,514	6,300	6,305	4,000	16,605	21.5	7.1
3	Chicago	3,396,808	4,499,126	11,175	16,345	3,959 (2)	31,479	9.3	7.0
4	Cleveland	878,336	1,214,943	9,000	16,000	2,500	27,500	31.3	22.6
5	Dallas	294,734	376,548	8,169	6,721	2,349	17,239	58.5	45.8
6	Detroit	1,623,452	2,295,867	7,000	24,200	4,835	36,035	22.2	15.7
7	Los Angeles	1,504,277	2,904,596	11,452	28,008	6,250	45,710	30.4	15.7
8	Philadelphia	1,931,334	2,898,644	7,764	13,919	4,800	26,483	13.7	9.1
9	San Francisco	634,536	1,428,525	11,595	6,205	4,800	22,600	35.6	15.8
10	Saint Louis	816,048	1,367,977	6,795	11,469	5,639	23,873	29.3	17.5

(1) Includes all of Essex and Union Counties, Lyndhurst and North Arlington in Bergen County and East Newark, Harrison and Kearny in Hudson County.

(2) Exclusive of 5,351 Spaces illegally used.

(3) Includes 459 car spaces in private garages.

(4) Includes 1,120 car spaces in private lots.

TALBE 13

*Estimated Future Parking Space Requirements
in Central Business District*

Year	Estimated Population in Metropolitan Area	Estimated Number Motor Vehicles in Metropolitan Area	Estimated Car Spaces			
			Garage	Lot	Curb	Total
1940	1,249,000	354,000	2,803	7,732	7,732	17,740
1950	1,366,000	406,000	5,300	8,000 (2)	7,000 (1)	20,300
1960	1,523,000	483,000	7,650	10,000 (2)	6,500 (1)	24,150
1970	1,603,000	533,000	8,650	12,000 (2)	6,000 (1)	26,650

In 1940 there were 50.0 car spaces per 1,000 motor vehicles in Metropolitan Area. Applying this ratio to estimated future motor vehicles gives total number of car spaces needed.

(1) Gradual reduction in curb parking assumed.

(2) Number of obsolete buildings removed assumed to be greater than new buildings constructed on vacant sites.

CITY OF NEWARK, NEW JERSEY



PROPOSED STREET IMPROVEMENTS AND OFF-STREET PARKING FACILITIES

LEGEND

- PRESENT PARKING LOTS
- PRESENT PARKING LOTS OCCUPYING CITY-OWNED PROPERTY
- PROPOSED PARKING LOTS
- PRESENT PARKING GARAGES
- PROPOSED PARKING GARAGES
- PROPOSED WIDENING OR NEW STREET

CENTRAL BUSINESS DISTRICT AND ADJOINING AREA

CENTRAL PLANNING BOARD OF
NEWARK, NEW JERSEY

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS

they should be routed near the center, rather than around the boundaries of the central area.

A general description of the proposed major street plan has been given previously.

Proposed Parking Facilities:

The proposed parking plan for downtown Newark may be summarized as follows:

1. Supplement present parking lots and garages by providing additional off-street facilities for shoppers and other persons having business in the district in the form of open-deck-type parking garages, located as near the center of retail business as possible, and an underground parking garage in Military Park.

2. Provide additional facilities for all-day parkers and persons transacting business downtown by means of parking lots, located along the distributor streets skirting the edges of the business district.

3. Install additional parking meters on streets convenient to retail shops where unmetered limited time parking is now in effect.

4. Extend "no parking" restrictions on streets where roadway capacity is limited and traffic is heavy.

5. Strictly enforce all parking regulations to insure utilization of off-street facilities and maximum turnover of spaces.

6. License all parking lots and prescribe minimum standards of size, location of entrances and exits, surfacing and fencing.

The number and location of proposed parking garages and lots shown on Plate No. 17 were determined in accordance with the estimate of future needs and a careful study of possible sites. The program is designed to be carried out over a twenty-five year period by private enterprise in cooperation with the City. The City's participation in the program should be limited to acquisition of sites and control of their development. By exercising the right of eminent domain, sites may be assembled and then leased to private operators under an arrangement that will insure the retirement of bonds issued for the land acquisition and the payment of taxes. It may be necessary to secure State Legislation to authorize such transactions, such as has been adopted in several States in recent years. This Legislation should be broad enough to permit the City not only to acquire and lease property to private operators but also to construct and operate its own facilities if private enterprise is unwilling to undertake these needed improvements.

The proposed system of new off-street parking facilities consists of four open-deck three-story parking garages, one three-story underground parking garage and twenty parking lots (See Plate No. 17 for a view of the proposed Military Park underground garage). The garages would provide 4,440 car spaces and the parking lots 3,360 car spaces, making a total of 7,800 new car spaces. Adding these to the car spaces now available in parking lots, garages and at the curbs, a total of 23,500 car spaces are provided which is approximately the number estimated to be needed in 1960.

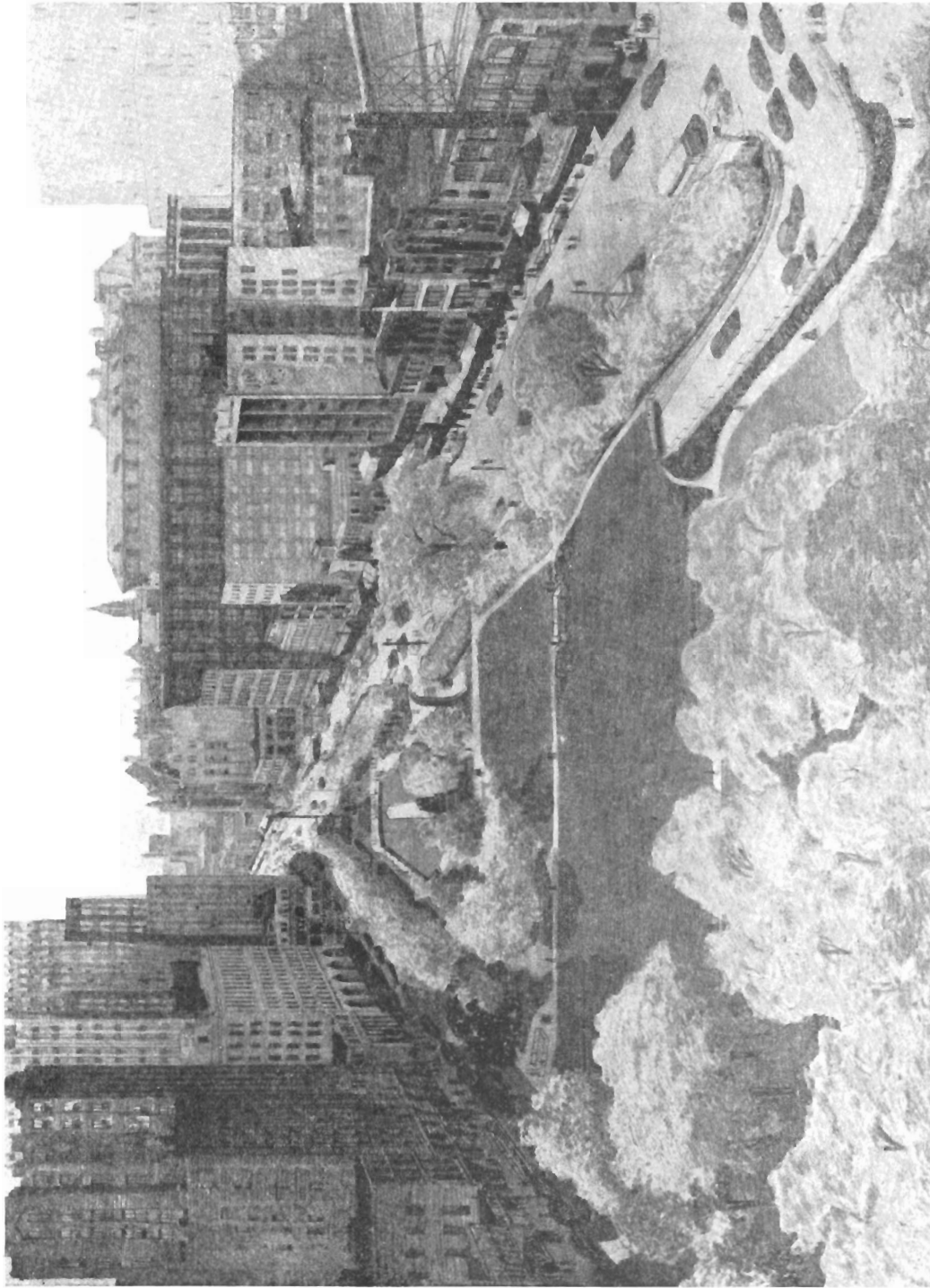


Plate No. 17

Perspective View of Proposed Military Park Garage

LOCAL TRANSPORTATION

An efficiently operated, modern transit system is an essential part of any urban community. The economic life of the City cannot function without means for transporting large numbers of people to and from their homes, to places of employment, or in their ordinary business pursuits. When something occurs that causes the mass transportation system to suspend operation, even for a few hours, chaos ensues. Intra-city transportation facilities are as important to a community as are other public utilities, such as water, electricity, and gas.

While there has been a phenomenal increase in the use of the private automobile in recent years throughout our cities, this form of transportation can never supplant the trolley, bus, or trolley coach. If all, or even a part, of the general public were forced to use the private passenger motor vehicle to transact their business in an urban center, the whole system would break down, as there is not enough street space to accommodate the number of vehicles needed under those conditions. A bus or street car carries from 25 to 70 passengers and requires little more street space than an automobile, carrying two or three persons.

The Essex Division of Public Service Co-ordinated Transport carried approximately 492,000 passengers daily in 1939 and more than 800,000 daily in 1944, when war activities were near a peak. In addition to the transit facilities operated in Essex County by Public Service, there are also a number of independent bus lines which carry a substantial number of passengers. The figures in Table 14 give a clear picture of the importance that mass transportation plays in the daily life of the community.

The rapid expansion of the use of the private motor vehicle has thrust enormous problems on every city in the country. In an effort to accommodate the automobile, cities have made in the past huge expenditures in street improvements, and they are faced with

even larger costs, if the problems of congestion are to be solved. Streets are primarily channels for the movement of people and goods. It would be far more economical and logical to improve the methods of movement within these channels, rather than to direct all of the City's resources toward creating a system of streets and parking facilities of such a nature that all people could travel by private automobile. There are great opportunities in Newark and its surrounding suburbs to relieve the present street congestion by making improvements to the transit system.

Importance of Transit System During War Emergency

The Newark industrial area was one of the most important production centers in the country during the recent war emergency. That it was able to reach and maintain an extremely high rate of production was due in no small measure to the efforts of the public transportation agencies throughout the area. The rationing of tires and gasoline threw an enormous burden on these companies, especially in view of the fact that they were hampered by inability to replace obsolete equipment and to expand their facilities to meet the greatly increased demand. In 1943, when war production was at its peak, Public Service carried a total of 308,000,000 passengers, compared to 180,000,000 in 1939, on their Essex Division alone.

These figures give some indication of the potential number of passengers that could be carried by mass transportation facilities, and with man-power and equipment difficulties removed in the post-war era, an even greater number of passengers could be accommodated with greatly improved convenience and comfort. Translated into vehicular use of surface streets, the possibility of reducing congestion by increasing the use of mass transportation facilities becomes apparent.

TABLE 14

Trends in Miles Operated, Passengers Carried and Gross Revenues of Newark and Essex Division, Public Service Corporation

Year	Miles Operated Street Car	Trolley Coach	Bus	Total	Number of Passengers	Number of Passengers Per Mile	Gross Revenues
1925	15,622,047		19,617,586	35,239,633	239,912,715	6.8	\$13,647,195
1930	11,709,873		30,386,194	42,095,067	225,182,045	5.1	14,925,019
1935	8,374,610		23,697,170	32,071,780	161,956,597	5.0	10,189,716
1936	7,532,202	1,277,686	24,990,674	33,800,562	174,913,782	5.1	10,910,815
1937	3,076,322	7,971,795	24,828,332	35,876,449	189,948,899	5.3	11,105,202
1938	2,586,519	10,341,568	26,744,972	39,673,059	174,848,628	4.4	10,711,853
1939	2,631,214	10,673,469	23,603,953	36,908,636	179,899,241	4.9	11,017,793
1940	2,632,057	10,900,882	24,256,136	37,789,075	185,594,371	4.9	11,363,579
1941	2,686,610	11,424,911	24,907,588	39,019,109	202,796,861	5.2	12,532,058
1942	2,876,646	13,334,495	29,164,291	45,375,432	263,831,769	5.8	16,710,102
1943	3,184,189	13,441,604	31,111,766	47,737,559	308,575,513	6.5	19,755,381
1944	3,023,389	11,895,441	29,643,465	44,562,295	295,548,347	6.6	18,878,280
1945	2,838,304	11,129,017	28,881,437	42,748,758	290,625,789	6.8	18,605,390

Influence on Growth and Development of the City

Transit facilities have always had a pronounced effect upon urban growth. Before the automobile had reached its important place in the transportation field, mass transportation furnished almost the only means for people to get about in the City, and the area of development was limited by the length of the street railway lines. This resulted in a compact development as relatively few car lines extended more than four or five miles outward from the center of the City.

The development of the automobile made it possible for people to live at a much greater distance from their places of employment, and urbanization began to take place over a greatly expanded area. In many instances, population has become so thinly scattered that it cannot be economically served by mass transportation.

Regardless of these trends, the transit lines still exert a great influence on the development of cities. In large urban centers like Newark, a greater proportion of the population depends upon such service than in the smaller communities, and most of the population desires to reside reasonably near some kind of a transit line. While there is little opportunity for expansion or growth into new areas in Newark, the provision of mass transportation facilities in the areas to be re-developed will be an important consideration in the planning of such projects. The future efficiency and stability of the Central Business District will depend, to a large measure, on the extent to which the transit system can be improved to make this area more accessible to large numbers of persons and to relieve present congestion on the downtown streets.

Newark is the center of the metropolitan area of North Jersey, lying west of the Hackensack River, and extending from Paterson in the north, to Elizabeth on the south. The great majority of transit lines operated by

Public Service Coordinated Transport in its Essex Division, leads directly to the heart of Newark and form a comprehensive network throughout this metropolitan area. Thus, it is impossible to confine the studies to the City of Newark alone. Consideration must be given to the needs of all sections of the North Jersey area as they are directly related to the needs of Newark itself.

The plan consists of three parts, i.e.:

- a. An immediate Routing Plan,
- b. An ultimate Routing Plan, and
- c. A Plan of Rapid Transit.

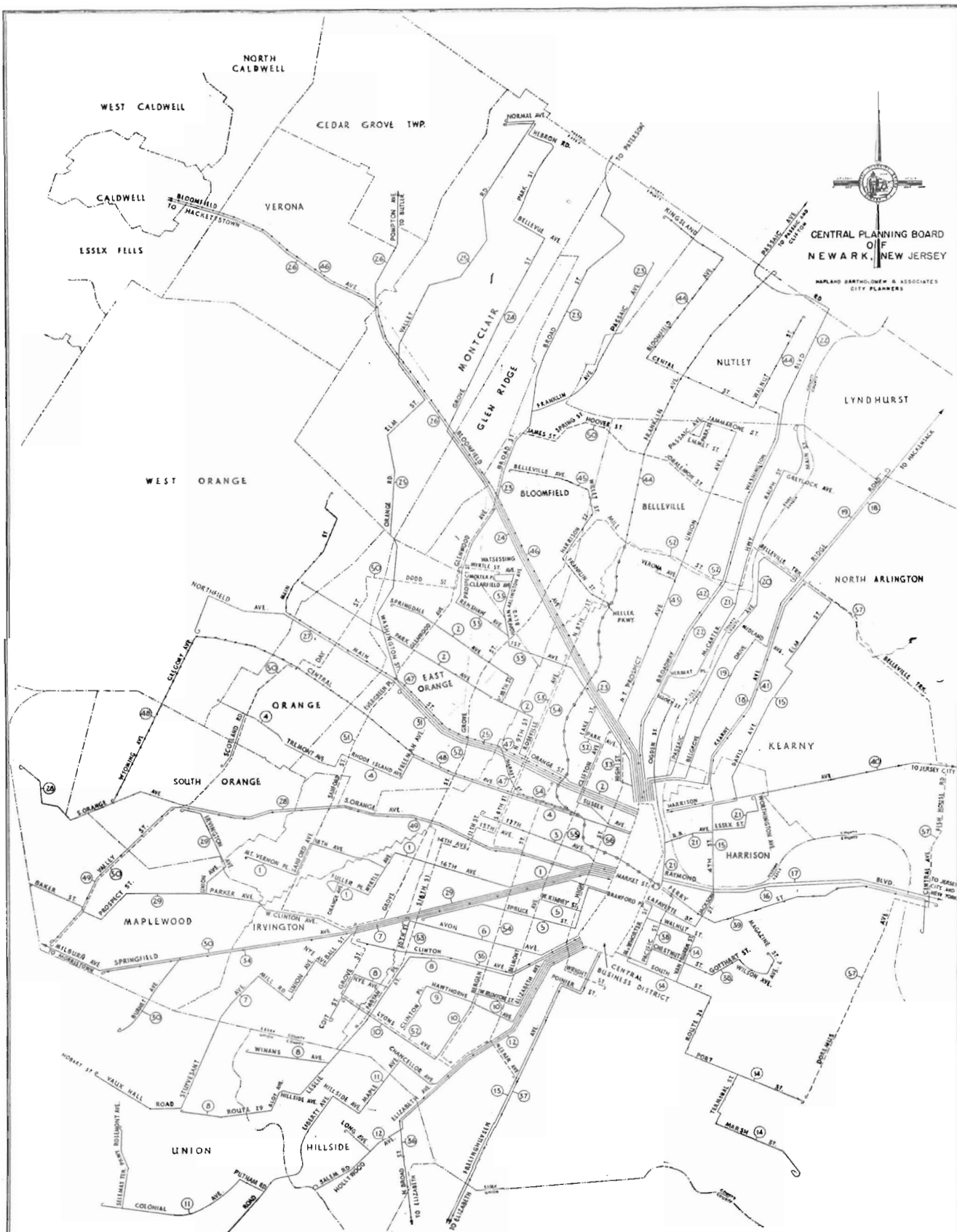
The first plan is concerned with certain changes in the routing of bus and trolley lines that could be put in effect within the next few years, as no extensive street improvements would be required.

The ultimate plan is designed to be carried out over a period of from twenty-five to thirty years in conjunction with certain recommendations for major street improvements.

The third, or rapid transit plan is concerned with facilities for improving transit service in the Newark area and other areas beyond.

Immediate Re-routing Plan

The proposed routing plan to be placed into effect within the next few years is shown on Plate No. 18. The plan shows the location and extent of the routes, rather than the specific type of service that should be provided. While a distinction is made between bus, trolley-coach, and rail service it may be expedient or necessary to use a different type of vehicle than is suggested on some of the lines. It is impossible to forecast the type of transit vehicles that may afford maximum comfort, conveniences, and economies within the next five or ten years, as there have been great technological advances during the



CENTRAL PLANNING BOARD
OF
NEWARK, NEW JERSEY
HAPLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS

IMMEDIATE TRANSIT PLAN

LEGEND

- TROLLEY COACH RAPID TRANSIT
- TROLLEY COACH SURFACE & RAPID TRANSIT
- - - TROLLEY COACH
- x - x - BUS LINE
- x - x - CROSS-TOWN BUS LINE

war. It is much more important that the plan show the location of the route and that the description of each route indicate the character of the service, rather than to attempt forecasting the exact type of service to be located thereon. It is the intention of the operating company to replace its obsolete equipment with modern vehicles as soon as they become available, but it may be some time until the replacement program can be carried out.

The plan does not contemplate any extensive changes in the present system. Certain major thoroughfares, such as Broad Street, Elizabeth Avenue, Frelinghuysen Avenue, Central Avenue, Bloomfield Avenue, Broadway, and Mt. Prospect Avenue will continue to be used by numerous transit lines. Certain lines have been combined to eliminate excessive duplication of service or in the interest of more direct routing, and a few existing lines would be abandoned under the plan. Route numbers have no relationship to existing lines, and they are shown on the drawing in order to expedite identification of the proposed routes. Proposed routes numbered 1 to 33 inclusive, are bus operated; routes 34 to 49 are trolley coach lines, while routes 50 to 57 inclusive, are crosstown lines, either bus or trolley coach.

There are relatively few feeder lines in the Newark system, such as the present Park Avenue bus line. In such instances, it is recommended that the lines be extended to give direct service downtown.

The plan contemplates that those lines which serve the more outlying section of the area should operate as express lines. As a general rule, these lines are located on main radial thoroughfares, and local service would be given by supplemental shorter lines.

Conversion of Subway to Trolley Coach Operation

The principal change involves adapting the present subway system to trolley coach

operation. At the present time, there are four rail lines operating through the subway. These are No. 7 City Subway, No. 21 Orange, No. 23 Central, and No. 29 Bloomfield. The City Subway line operates entirely on private right-of-way while the other three lines utilize City Streets after emerging from the Subway. The present tracks on Orange, Main, and Bloomfield Avenue are in poor condition, and the rolling stock is obsolete. A decision must soon be made by the Company, whether to re-lay the major part of their tracks in the City Streets and purchase new equipment to replace the present street cars, or to convert the Subway system to bus or trolley coach operation. It is recommended that the Subway system be changed over to Trolley coach operation as soon as feasible. To do so would require laying of paving in the Subway and readjustment of the exit and entrance ramps to accommodate the trolley coaches. It is believed not feasible to operate gasoline or Diesel-powered buses in the Subway, due to extremely difficult ventilating problems.

If the Subway is paved, it is recommended that consideration be given to leaving the rails intact in the event that later on the subway may be extended as part of a future rail rapid transit system.

Changing of the Subway from rail to trolley coach operation will introduce certain hazards arising from the narrow clearance between walls and columns. It is believed that this difficulty can be overcome either by grooving the pavement or by developing devices to insure against swerving of the vehicle.

By substituting trolley coach operation for rail operation, it will be possible to free parts of Central Avenue, Main Street, Orange Street, Bloomfield Avenue, West Market Street, and Warren Street, of street cars. The modern trolley coach is noiseless, comfortable, and speedy. It discharges and picks up passengers at the curb, thus permitting

vehicular traffic to pass without delay. It can also pass an obstruction in the street in contrast to the street car.

The greatest advantage of the proposed change, however, is the opportunity afforded to make more efficient use of the Subway. Constructed by the City a few years ago, at a cost estimated between five and six million dollars — the \$120,000 rental received annually from Public Service is insufficient to pay the interest on the bonds issued to finance the improvement.

In 1939, the four lines carried a total average daily of 45,000 passengers, as compared to 56,000 available seats. No figures are available to show how many of the passengers were carried on those sections of the lines operating in the Subway itself, but it is safe to assume a substantial number rode between points elsewhere on the line. There is a great deal of local riding between points on Main Street, Central Avenue, and Bloomfield Avenue, which is included in the cited figures. City Subway line, which operates entirely in the Subway system, carried only 1,840 passengers daily in 1939, increasing to 5,238 in 1944. During the same years, there were 6,816 and 8,064 seats furnished, respectively. The area of service of this line is extremely limited, as it traverses the edge of Branch Brook Park for the greater part of its length.

At the present time, during the A.M. rush 65 vehicles an hour pass through the Subway in each direction, whereas, it is estimated that approximately three times that number could be accommodated without major changes in the loading platforms.

Extension of Subway Lines

It is proposed to increase the use of the subway by extending lines into territory now served by surface transportation. This would speed up travel time to downtown Newark, give more frequent service, and provide

more comfortable riding conditions. At the same time, it would make it possible to take a substantial number of surface vehicles off the congested streets. The increase in patronage resulting from these improvements should make it possible within the lifetime of the existing contract between the City and the Public Service Corporation, to increase the revenues sufficiently to place the facility eventually on a self-supporting basis.

Reference to Plate No. 19 shows the lines which will form the new subway system. These are:

Route 44 Connects with the end of the present subway and extends along Franklin Avenue to the Passaic County line. The line splits at Centre Street, Nutley, to give service to the eastern and western sections of Nutley and the northern part of Bloomfield.

Route 45 serves Bloomfield and enters the Subway system at Heller Parkway.

Route 46 corresponds to present Bloomfield Street Railway No. 29.

Route 47 corresponds to present Orange Street Railway No. 21.

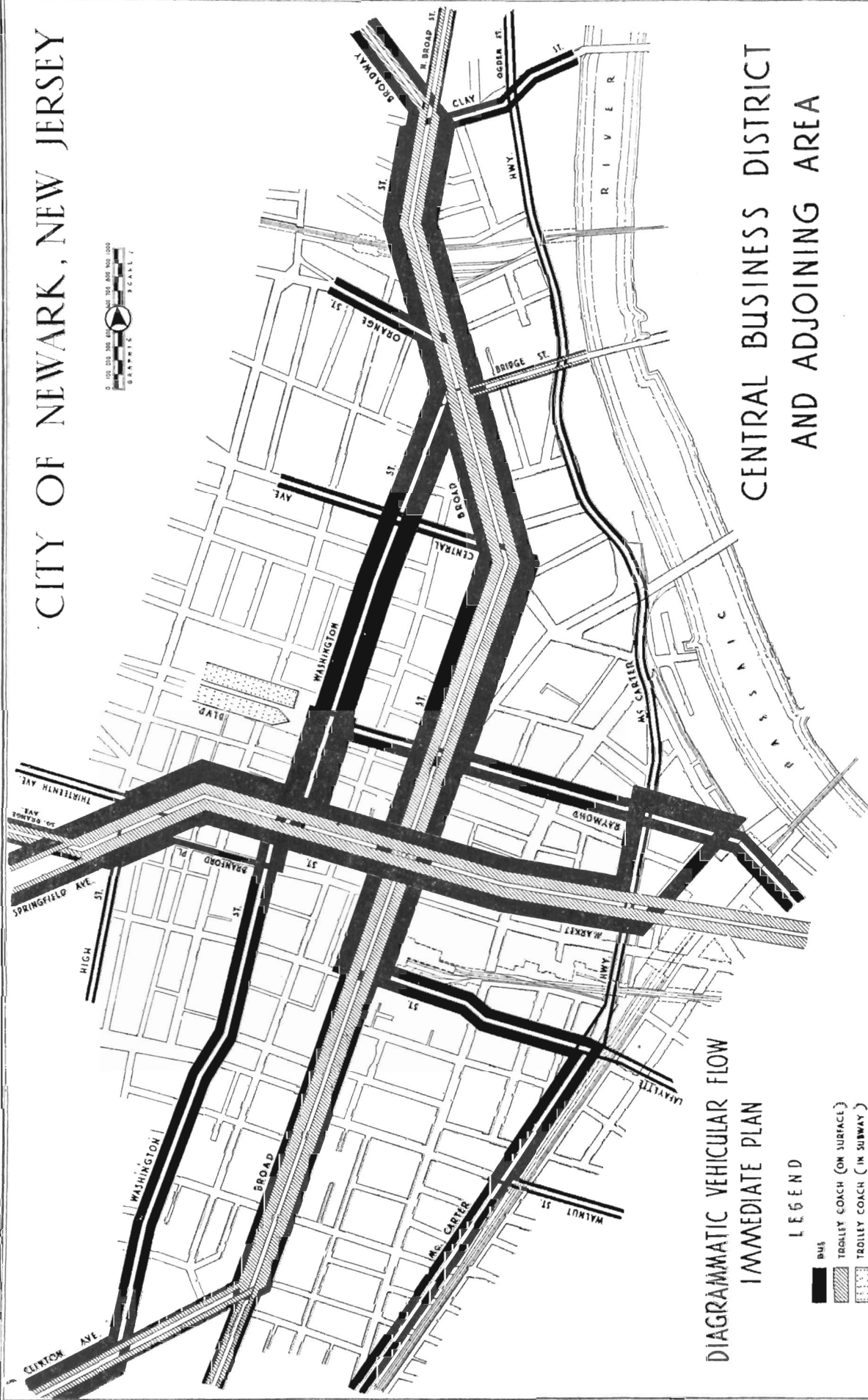
Route 48 corresponds to present Central Street Railway way No. 23, but an extension to South Orange is provided on Gregory and Wyoming Avenues.

Assuming headways of one and one-half minutes during the morning and evening rush on lines 44, 46, 47, and 48, and four-minute headways on line 45, the minimum headway within the Subway would be approximately 20 seconds compared to present minimum headways of one minute. 195 trolley coaches would operate in the Subway, compared to 65 as at present, during the maximum hour of use.

Business District Routings

No attempt has been made to indicate detailed proposed routings within the Central Business District. However, steps should

CITY OF NEWARK, NEW JERSEY



DIAGRAMMATIC VEHICULAR FLOW IMMEDIATE PLAN

LEGEND

- BUS
- TROLLEY COACH (ON SURFACE)
- TROLLEY COACH (IN SUBWAY)

SCALE
EQUALS 150 VEHICLES

CENTRAL BUSINESS DISTRICT AND ADJOINING AREA

CENTRAL PLANNING BOARD OF
NEWARK, NEW JERSEY

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS

be taken to reduce the concentration of rush-hour vehicles on Broad Street and secure a better balanced distribution of routes throughout the area. This can be accomplished in two ways:

1. By routing trolley coach lines through the City Subway.
2. By transferring part of the Broad Street Service to Washington Street.

Plate No. 19 has been prepared to show the possibilities in this connection. The width of line shows the volume of vehicular flow during the rush periods, based on proposed routings shown on Plate No. 19. The solid bands indicate buses while the hatched bands indicate trolley-coaches. The volume of Subway vehicles is shown as a stippled band.

In developing this proposed immediate re-routing plan, an attempt was made to balance the number of vehicles entering and leaving at the south. This would make it possible to provide more through operation than is there now. The approximate number of vehicles per maximum hour on each of the routes operating in the central area was established. These ranged from 15 to 45 per hour, depending on the importance of the line. Headways ranged from four minutes to 1½ minutes.

It is proposed to route all trolley coaches through on Broad Street with a stand-by line kept in Washington Street to be used in case of emergency resulting from a breakdown on Broad Street. Under this arrangement, trolley coach lines entering from Broadway, North Broad Street, and Bridge Street would continue through to Clinton Avenue and South Broad and vice versa. There would be 120 trolley coaches per hour in each direction, operating on Broad Street between Bridge Street and Clinton Avenue.

Some of the bus lines now operating on Broad Street would be transferred to Wash-

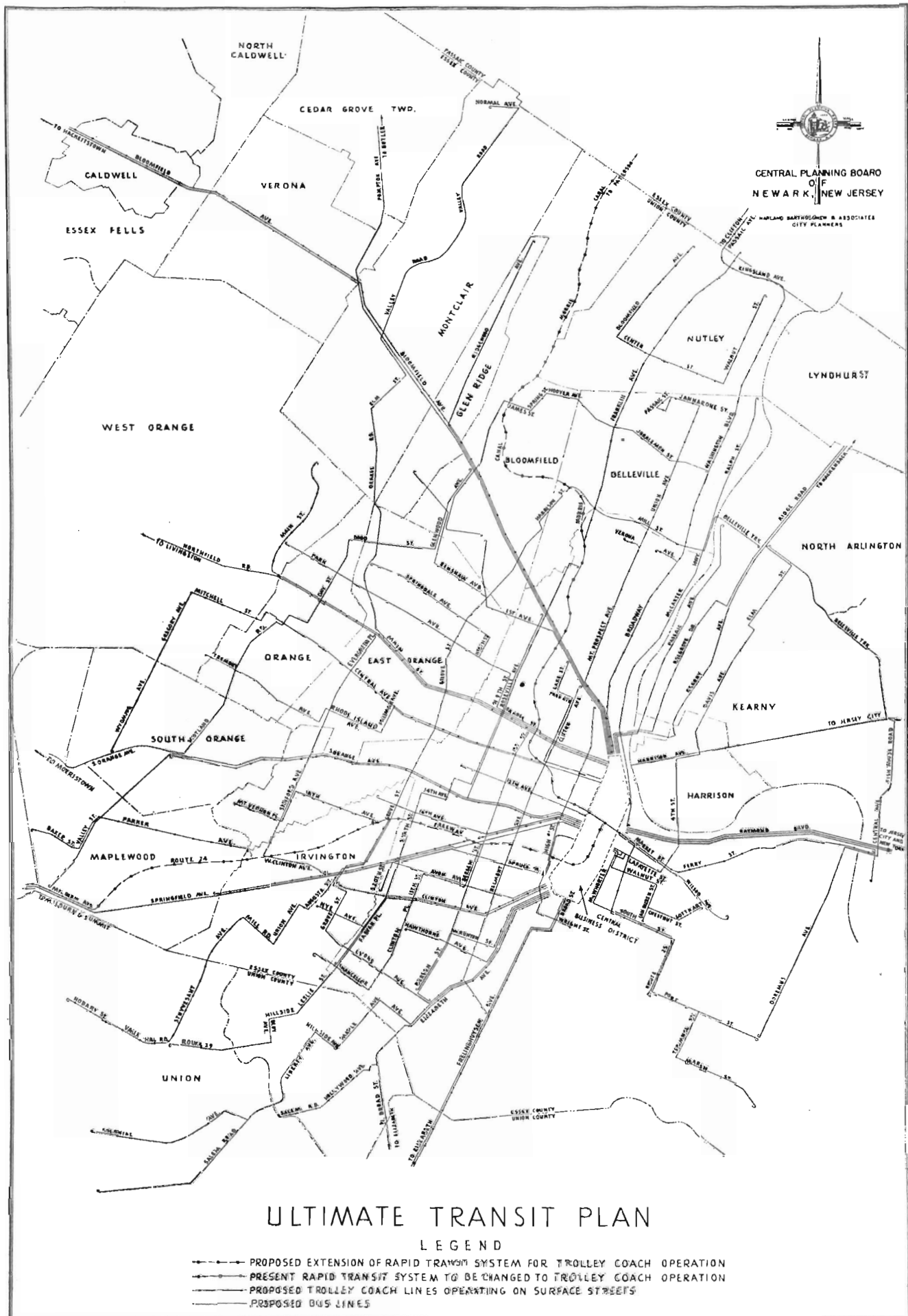
ington Street to relieve the overloading of Broad St. Between Central Avenue and Lafayette Street there would be 165 buses per hour southbound, and between Central Avenue and Raymond Boulevard there would be 210 buses per hour northbound. At the point of the greatest concentration, there would be a total of 285 vehicles per hour southbound and 330 northbound, or a total of 615 vehicles. This compares with the present 733 vehicles per maximum hour now operating on Broad Street, or a reduction of 16.1 per cent. It should be pointed out that further reduction in vehicles could be effected if large vehicles are substituted for the present small buses.

The proposed plan provides for additional bus service on Washington Street. Between Market Street and Raymond Boulevard, there would be 235 vehicles per hour in each direction, or a total of 470 vehicles per maximum hour. This is a slight reduction from the present 491 vehicles per maximum hour. More vehicles would operate north of Raymond Boulevard than there are now.

On Market Street, it is contemplated that all trolley coaches would operate through the business district and that all bus lines would loop around the Pennsylvania Station. This plan would result in 165 bus movements in each direction during the maximum hour and 120 trolley coach movements in each direction, or a grand total of 570 vehicles per hour, between Washington Street and McCarter Highway. This is a material increase over the present 280 vehicles per maximum hour now using Market Street.

On Raymond Boulevard, the number of vehicles per maximum hour is estimated at 180 between McCarter Highway and Broad Street, compared to 329 now operating over the section of the street.

Trolley coach operating in the System would result in 195 vehicles per maximum hour in each direction, compared to the pres-



ent volume of 65 street cars. Based on seating capacities, the proposed plan would furnish 8,580 seats per hour, instead of the present 3,500.

It should be pointed out that the assumed headways represent materially increased service on most of the lines to compensate for the reduction in their total number, and that they may prove to be over-generous under actual operating conditions. In such event, the number of vehicles shown on the diagram could be reduced in corresponding amount.

No attempt has been made to show additional short loop service or alternate routes. The plan is diagrammatic in nature and merely shows the possibilities of reducing present congestion in the downtown area.

Ultimate Routing Plan

Plate No. 20 indicates the eventual routing plan to be put into effect following completion of certain street improvements. The principal difference between this and the immediate routing plan is that it is based on the recommendation that the City Subway be extended south and southwest through Irvington and Maplewood for trolley coach operation, and that it also be extended northward to Paterson.

With the future Subway System developed as recommended, it will be possible to extend trolley coach operation from points along the Subway into Maplewood, Irvington, and Union, which now depend upon surface transportation to Newark.

There are four types of lines indicated on the drawing. These are:

1. The present Subway System to be converted into trolley coach operation.
2. The proposed extension of the Subway System.

3. Proposed trolley coach routes operating through the City Subway and on surface streets.

4. Bus operation.

While the northern extension of the Subway is shown following the Morris Canal Bed, northward, eventually it might be possible to utilize the right-of-way of the Erie Railroad. Ultimately it may be advisable to install rapid transit rail facilities in order to make full utilization of the new Subway System. At the present time, there is no means of financing such an undertaking, and it is recommended that trolley coach operation be instituted as an immediately feasible plan.

On the northern branch of the Subway, the trolley coach line would serve Belleville and Nutley, by way of Franklin Avenue, Centre Street, Bloomfield Avenue, and Walnut Street in Nutley. The extension of the Subway itself through Bloomfield would serve all of the area in that locality. Trolley coach operation on Bloomfield Avenue would also utilize the Subway System, and there would be service on Main Street and Central Avenue as at present. On that branch of the Subway following proposed Route 24 Freeway, a branch serving Maplewood and Summit would enter the Subway near the Irvington line and a branch serving Union, would enter from the south near the same point. There would also be a trolley coach route operating into the Subway at Bergen Street, which would serve the southern part of Newark.

It is also proposed to open the east end of the Subway at the Pennsylvania Station to enable surface operated lines to enter and leave the Subway at that point. This would make it possible to extend service through the Ironbound section by way of a line operating on Market Street and Ferry Street and one to the south to Port Newark and the Airport. By this improvement, it will be possible to inaugurate through east and west service

in the Subway, instead of requiring all facilities to loop at the Pennsylvania Station.

The routes indicated as being bus operated and those shown as trolley coach routes operating on surface streets, are shown, but these are subject to change, as it is impossible to anticipate the type of vehicle that would be used on individual routes in the future. Generally speaking, the ultimate routing plan is quite similar to the immediate plan shown on Plate No. 18, except for the increased use of the City Subway after its enlargement.

No attempt has been made to indicate the routing in the Central Business District, but estimates have been prepared on the possible volume of transit vehicular traffic, which might use the streets in the downtown area, when the plan is put into operation. Plate No. 21 is a diagrammatic vehicular flow map showing, in a simplified way, the volume of transit vehicles operating on Broad Street, Washington Street, Raymond Boulevard, and Market Street. This drawing was prepared merely to indicate the effects of operations in the Subway on operations on surface streets. Extending the Subway southward will make it possible to eliminate a number of surface lines which now enter the business district on Broadway. Increasing the volume of vehicles using the northern branch of the Subway will make a corresponding decrease of surface vehicles on a number of downtown streets. By extending surface operation east of the Subway, the volume of surface vehicles on Raymond Boulevard would be reduced.

The flow map is based on the assumption that greater use will be made of Washington Street by surface vehicles, thus reducing the load on Broad Street. In preparing the diagram, assumed minimum headways were used, and, in most cases, the service on individual lines was materially increased over that now given. Using larger type vehicles would decrease the number operating on the City Streets.

The more even distribution of transit vehicles on Washington Street and Broad Street will be beneficial to future development of the downtown area, as it will encourage retail business to be established on Washington Street, rather than string out along Broad Street to the north and south.

Undoubtedly, many other streets in the downtown area will be utilized for transit routes. No attempt has been made to indicate these streets. For example, there will undoubtedly be service on McCarter Highway, Halsey Street, and other east and west streets.

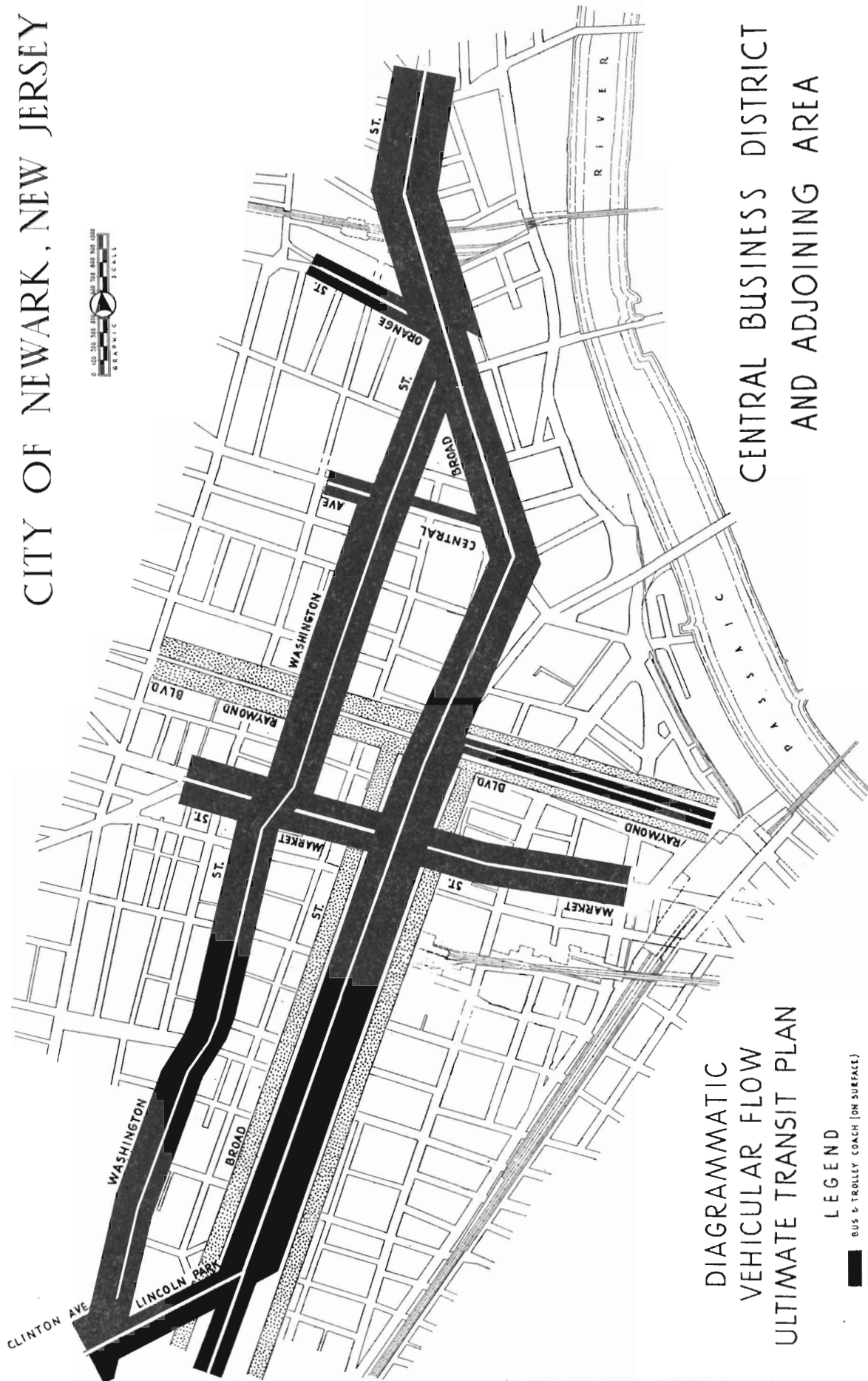
Rapid Transit

Past History

For many years, studies have been made by various agencies to obtain a comprehensive system of inter and intra-state rapid transit in the North Jersey and New York metropolitan area.

The problem was first studied by the North Jersey Transit Commission created by Act of the New Jersey Legislature in 1922. This Commission made several reports containing numerous plans for a rapid transit system connecting northern Jersey communities with New York City and also connecting Newark with neighboring New Jersey communities. The Commission recognized the difficulty of dealing with interstate problems, and its functions were transferred to the Suburban Transit Engineering Board, composed of representatives of the Port of New York Authority and the railroads operated in New Jersey, Long Island and Westchester. This co-ordination Board made reports in 1928 and 1930 to the North Jersey Transit Commission and terminated its activities in 1931. All later studies were conducted by the Port of New York Authority. In a report submitted in 1937 to the Governor and Legislature of the State of New Jersey, the Port Authority

CITY OF NEWARK, NEW JERSEY



DIAGRAMMATIC VEHICULAR FLOW ULTIMATE TRANSIT PLAN

LEGEND

- BUS & TROLLEY COACH (ON SURFACE)
- TROLLEY COACH (IN SUBWAY)

SCALE

- EQUALS 100 VEHICLES

CENTRAL BUSINESS DISTRICT AND ADJOINING AREA

CENTRAL PLANNING BOARD OF
NEWARK, NEW JERSEY

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS

made certain recommendations for a suburban rapid transit system for northern New Jersey.

It was estimated that this plan would cost \$187,500,000, and that it would lack sufficient revenue to place the system on a paying basis. However, it was stated that the benefits resulting from such a system would justify some form of public subsidy. Since this report was made, no further steps have been taken toward carrying out the proposed plan.

In addition to the plan for interstate rapid transit facilities prepared by the Northern New Jersey Transit Commission, studies were made for an intra-state system, centered around Newark. In a report made in 1929, the Commission stated that the Newark area should be provided with additional rapid transit facilities, particularly north to Paterson, south and southwest to Elizabeth, Hillside, Irvington, Maplewood, and other communities. The report recommended that rapid transit facilities be extended to Paterson over one of several alternate routes and that it should also be extended south to Elizabeth and southwest to Springfield, Westfield, and other communities. The proposed plan contemplated a subway under Broad Street, extending from a point near the Lackawanna Railroad to Lincoln Park, with a future extension to the south and southwest.

Proposed Plan

In considering the needs for rapid transit in Newark, under present conditions, consideration has been given to all of the former proposals made in this connection. Since these former proposals were made, the Newark subway has been constructed, and the Pennsylvania Station together with the removal of the Hudson and Manhattan Terminal from Park Place has been accomplished.

While it has not been possible to undertake the exhaustive and engineering finan-

cial studies necessary to developing a comprehensive system of proposed rapid transit facilities for the Newark area, certain conclusions have been reached and are presented herewith. It is recommended as a possible ultimate plan:

1. That the present subway system be extended north to Paterson, via the bed of the Morris Canal and the Erie Railroad, and that modern rail equipment be installed on this route.
2. That the present subway system be extended south on Broad Street to a connection with the proposed Route 24 Freeway extending to the southwest and that rail operation be provided for in the freeway when constructed.
3. That the Hudson and Manhattan Tubes service be extended south along the right of way along the Pennsylvania Railroad to Elizabeth with a branch connecting the Newark Airport.
4. That express bus service be established on the proposed Route 100 Freeway extending through the Newark Meadows to a connection with the New York tunnels and that express bus service be installed on proposed Freeway 25-A extending through the Oranges and Newark across the Passaic River to the New York tunnels.

The proposed extension and transformation of the subway system to rail operation will necessarily be deferred until such time as more detailed studies reveal the cost of the improvements and ways and means for financing them. It is recommended that some form of regional agency be established to further study this problem. This agency might be similar to the former North Jersey Transit Commission or the Port of New York Authority might undertake the assignment as part of its general planning program to improve transit facilities in the New York area.

Plate No. 22 shows the proposed system as summarized above. The plan should be carried out in three stages. The first stage, described under the Immediate Transit Plan, consists of converting the subway system to trolley coach operation with extensions into areas now served by street cars and buses. The second stage involves extension of the subway system as shown on Plate No. 20. Whether trolley coach operation should continue on the expanded system or whether rail operation should be instituted at that time, can be determined later.

If rail operation is installed, it will be necessary to operate feeder lines to points on the subway system from which passenger would transfer to the subway. There is a natural reluctance on the part of the public to such transfers, but if properly designed transfer stations are installed and frequent service is given so that little or no time is wasted in waiting for a connecting vehicle, the reduction in running time should be a sufficient inducement to overcome the disadvantage of transferring.

Extension of Hudson and Manhattan Tube Service

The proposed extension of the Hudson and Manhattan tubes to Elizabeth is in conformity with former plans advanced by the North Jersey Transit Commission. The first step in this program should be the construction of the South Street station and extension of present service to that point. The second step should be a further southward extension to a new station in the vicinity of Haynes Avenue from which it eventually would extend to Elizabeth.

If estimates on future use of the Airport are correct, there may be a need for rapid transit facilities leading to Pennsylvania Station in Newark and to New York. Such an extension is shown on the plan as an ultimate possibility. This proposed extension would have no effect on future stations along the main lines of the railroad.

The proposed express bus service on Route 100 is essential to the future of the Airport. Construction of this Route from the Airport to the Lincoln Tunnel should be pressed with all possible speed by the State Highway Department.

TRANSPORTATION - WATER AND AIR

The Seaport and Airport are great assets to Newark. The tremendous postwar expansion of air, water, rail, and highway transportation that appears inevitable, will make it possible to utilize these facilities to a much greater extent than has been heretofore possible. Full development of the seaport and airport will require great expenditures which makes it imperative that future management be of the post efficient type.

While the seaport and airport have been financial responsibilities of the City of Newark, their influence and benefits extend throughout the New York metropolitan area, and they are integral parts of the Port of New York. It is vitally important that the regional aspects be kept in mind in considering the future of these facilities.

Comprehensive planning for future improvements to be made in Newark must include all of the physical elements which make up the city. Plans for the seaport and airport must be coordinated with land use and highway planning as well as rail transportation, industrial development, and other phases of the Master Plan.

Cities have proved unable to make seaports and airports self-sustaining. With one or two exceptions, none of them have been able to develop enough revenue to amortize capital costs, pay interest on the debt, and meet annual operating and maintenance costs. To date, Port Newark has cost the taxpayers approximately \$9,600,000, while the Airport has been subsidized to the extent of \$7,000,000.

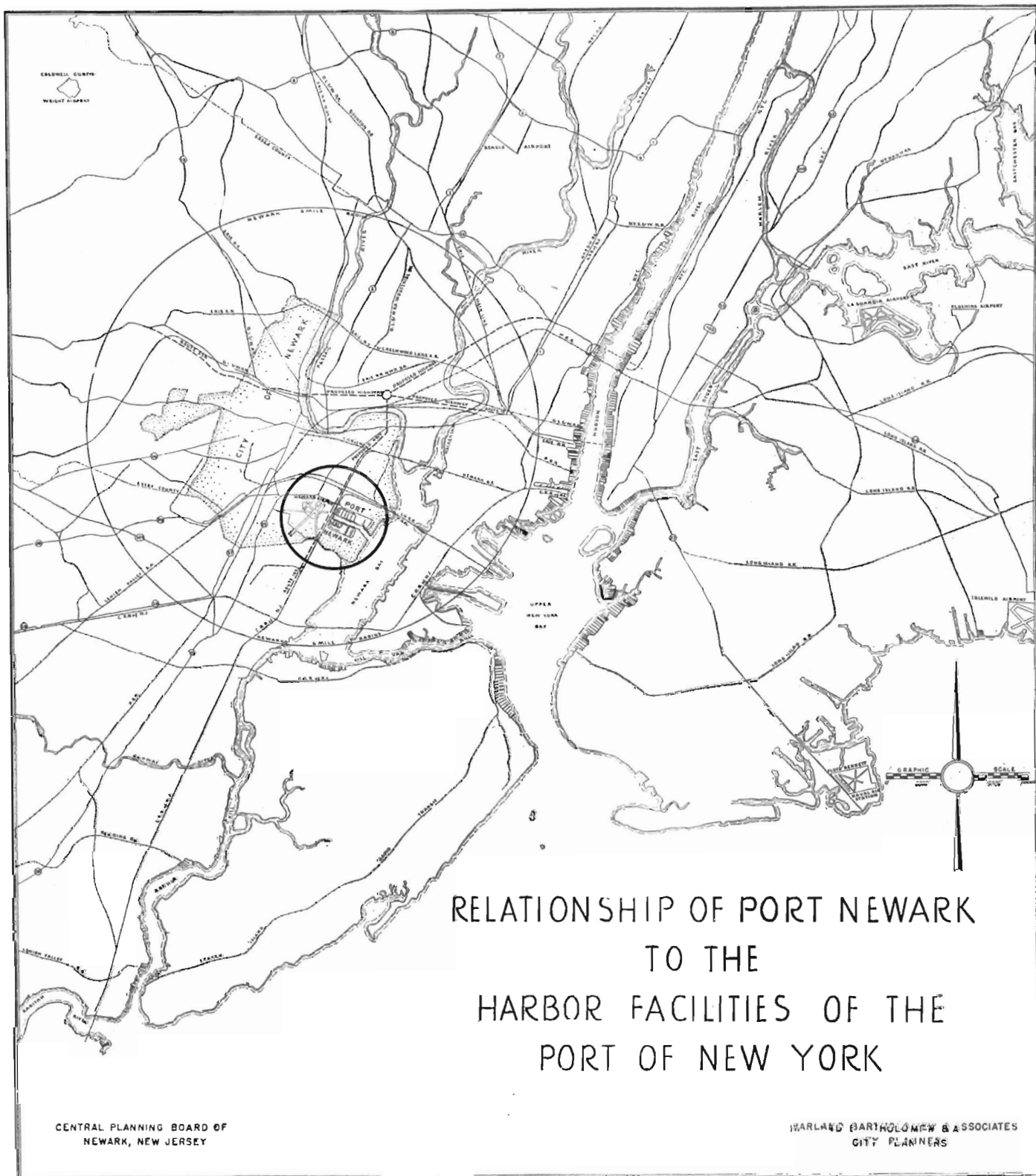
Newark needs both an airport and a seaport. While some public subsidy may be justified, the Newark taxpayer should not be forced to carry the full financial burden. Such facilities should, of course, be so planned and managed that they eventually will become as nearly self-supporting as possible.

Because seaports and airports provide both direct and indirect benefits to the popu-

lation and the business interests throughout the metropolitan areas in which they are located, and even wider sections of the State, it has been customary to create special public agencies to acquire, build, and operate such facilities. This is particularly true of seaports. For instance, extensive public port facilities in both Boston and San Francisco are owned and operated respectively by the States of Massachusetts and California, although, there are numerous privately owned and operated facilities also.

While many cities have developed municipally owned and operated airports, there is a growing tendency to create metropolitan airport authorities, and in certain instances, such as Boston, the State is now building, and will operate, the airport.

Newark's endeavor to create a great seaport and airport has been highly commendable and forward looking. However, those operations have resulted in the creation of a great debt and a substantial increase in taxes. Seaport bonds aggregating more than \$10,000,000 and Airport bonds aggregating more than \$7,500,000 have been issued to date. While it is true that the financial situation has been aggravated by government occupation of the port for a substantial time during its life, and by the sustained period of national depression in the thirties, nevertheless, under the most favorable conditions that might be anticipated, it is not believed that the City could avoid long periods of substantial annual deficits. The financial difficulties have been further aggravated and the port has not been developed to its capacity because of the obstacles to good port management that are inherent under city department administration. To realize the best results from the seaport and airport developments, it is essential that they be placed under an independent agency which would employ the same sort of aggressive management practices as would be expected of a good business concern.



Looking to the future, there is no question but that there is much need for a great seaport and airport at the location which Newark has developed for these two facilities. Since the location and the traffic of both the seaport and the airport are so completely integrated with the remainder of the New York metropolitan area, it is unwise for Newark to attempt to further develop these facilities by itself. Their greatest usefulness and the maximum volume of traffic to be expected will be attained only through co-ordination with other facilities in the New York metropolitan area. Only in this way will the seaport and airport reach their maximum usefulness and their greatest and most logical volume of traffic.

Newark is now carrying a substantial debt on both seaport and airport, and it will be many years before this debt can be liquidated. It now represents about 2½ points in the tax rate for the seaport and about 5 points for the airport. New improvements and facilities are needed in the immediate future which are estimated to cost approximately 4 million dollars for the seaport and approximately 12 million dollars for the airport. Before completing the ultimate development, an additional estimated 22 million dollars will be required for the seaport and 8 million for the airport. Newark taxpayers should not be called upon to carry this additional load. While estimates of future revenues and costs indicate both facilities might conceivably become self-supporting by 1960, these estimates may prove over-optimistic, particularly if there is not the most efficient administration and full co-ordination with facilities of the Port of New York.

In seeking some new and higher level of government to take over the operations of the seaport and airport, consideration might be given to either a new local port commission, a metropolitan district authority, or a state authority. Consideration should also be given to the possibility of private ownership or operation.

A local port commission would not ac-

complish the desired objective for it could not bring about the necessary closest integration with the various forms of transportation in the New York metropolitan area. Furthermore, even though it might accomplish more efficient and effective administrative policies and practices, the cost would still have to be borne by the Newark taxpayers.

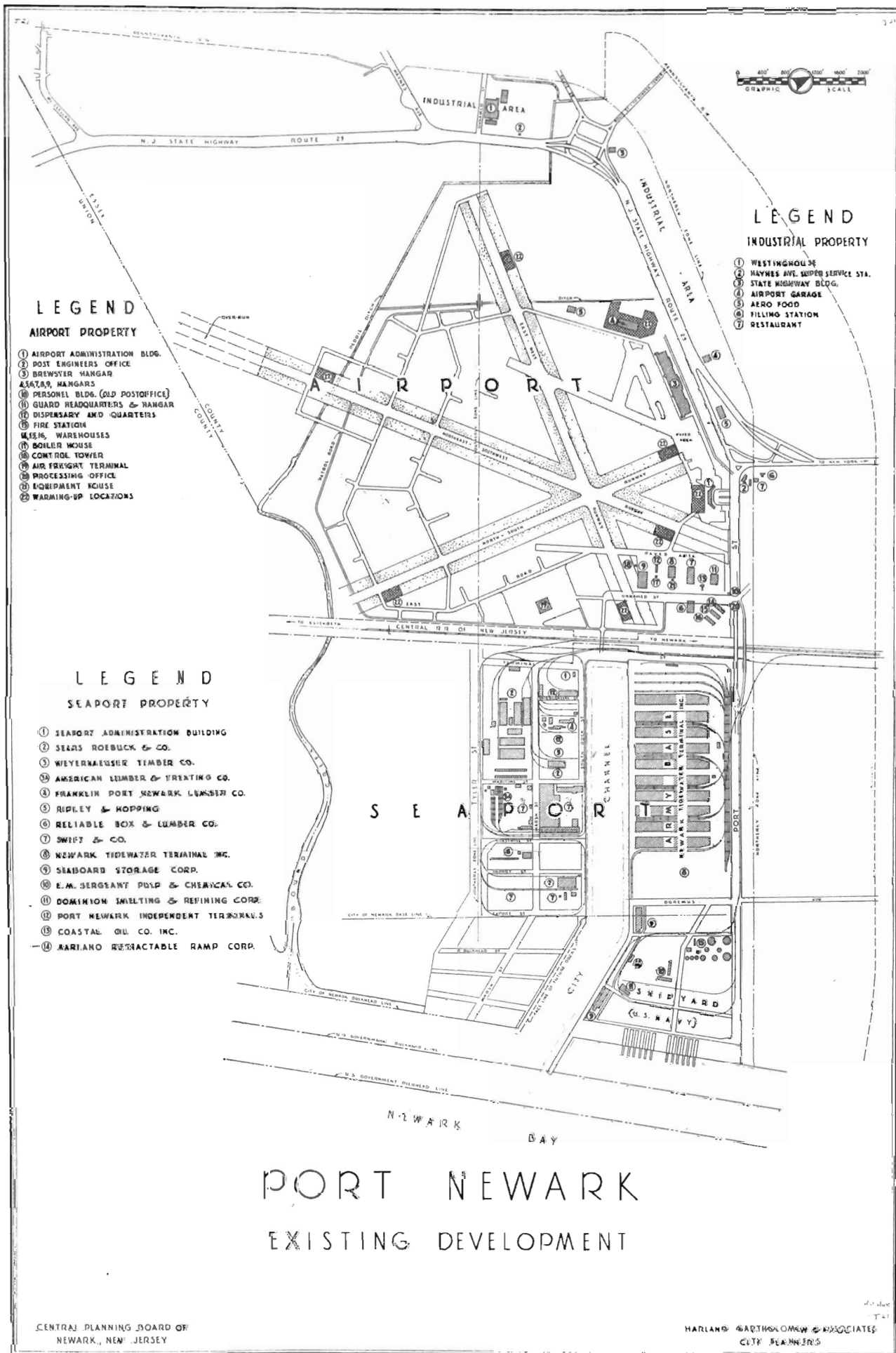
In considering the possibilities of a metropolitan or state authority, we find already a well established agency specifically created for these particular functions in the Port of New York Authority, established by the States of New Jersey and New York and whose membership is equally divided between the two States. This agency is particularly well constituted to handle facilities of this type and has a large staff with long experience in all forms of transportation in the New York metropolitan area. If a new local port commission were created, it would take many years to create a staff of equal competence and experience and the overhead expense would amount to a substantial sum annually. The Port of New York Authority, at present, has very large financial resources because of its exceptionally fine credit rating and issues bonds at very low interest rates. Bonds recently issued by that agency carry an interest rate of less than 2 per cent and are tax exempt.

In view of the recommendation for the operation of the seaport and airport by a higher authority, the re-establishment of an industrial commission would be needless and a duplication of function.

To obtain full development of the Port, it may be necessary to expand into Union County; such an extension would be much simpler under Port Authority or State management than under a local agency.

It would be illogical to create a new metropolitan or state agency, for this would be in duplication of the functions of the Port of New York Authority.

Sale or lease to the Authority on terms acceptable to the City will result in the development of maximum utilization of the sea-



port and airport with minimum cost for overhead expenses and management and with maximum return to the City of Newark. The indirect benefits would still come to the City without the necessity for financing by the taxpayers. Certainly, no other agency is in as favorable a position to receive maximum returns from the seaport and the airport.

Newark taxpayers would be relieved of the large additional capital expenditures which must soon be made at both the airport and the seaport. Through maximum efficiency in operation and full co-ordination with the transportation facilities of the New York region, there should be a possibility

of some financial return to the City of Newark to meet the present carrying charges on the outstanding bonds.

In the event that a reasonable agreement cannot be reached with the Port of New York Authority, it is recommended that some form of port agency be created, having both State and local representation and with both State and local financial support.

Plate No. 23 shows the relationship of Port Newark to the Harbor Facilities of the Port of New York. Plate No. 24 shows the existing development of Newark Airport and the Seaport.

TRANSPORTATION - RAIL AND TRUCK

Adequate facilities for the transportation of persons and goods are vital to any city — particularly a community such as Newark, whose industrial development is so dependent upon freedom of movement of finished products and raw material.

It was no accident that caused Newark to become such an important manufacturing center. Rather — it was a combination of favorable factors, chief among which were its unsurpassed railroads, its seaport, and its airport. No other city in the country possesses such an excellent and integrated transportation system.

In recent years, the rapid development of the motor vehicle and of paved highways has resulted in greatly increased use of trucks and buses as transportation media. The intensified use of city streets by such large and relatively slow vehicles has created serious problems of congestion, resulting in the delay of delivery of goods and transportation of people. While passenger bus terminals have generally been unified, there are a great many truck terminals scattered throughout the City, of varying sizes and capacity.

The integration of rail facilities, such as tracks and passenger and freight terminals with the physical structure of the City often results in conflicts and mutual interference between the function carried on between railroads and the business of developing a city.

The situation in Newark is further complicated by the fact that Newark is the center

of the North Jersey Metropolitan Area and is closely allied to the great Port of New York.

Planning of transportation on the local level will be ineffective unless it is closely tied in with the planning of the entire metropolitan area.

The logical agency for developing and implementing rail and truck unification plans is the Port of New York Authority. This agency has devoted many years to studying the problem, and has an intimate knowledge of the conditions in the Newark area. As their work progresses there should be a close working arrangement maintained between the Central Planning Board and the Authority, such as has been in effect in the past.

In the six-mile area centering on the front of River Street in Newark, there were in 1932, thirty-five stations for less-than-carload freight and twenty-nine other shipping and receiving points — or a total of sixty-four stations. Of these facilities twenty-three were located in Newark.

In 1945, despite efforts made by the Port of New York Authority to effect the joint use of some of these numerous freight stations, the total remained the same, although there has been some change in the volume of traffic handled by individual stations.

"Volume of freight handled" statistics recently prepared by the Port of New York Authority show the changes which have taken place in the freight tonnage handled annually in the Newark Area.

Less-than-carload Freight — Tons

1932 Inbound	105,504 Tons	1945 Inbound	152,417 Tons
1932 Outbound	125,172 Tons	1945 Outbound	240,569 Tons
1932 Total	230,676 Tons	1945 Total	392,986 Tons

Carload Freight — Tons

1932 Inbound	3,996,960 Tons	1945 Inbound	8,526,817 Tons
1932 Outbound	1,053,132 Tons	1945 Outbound	3,586,272 Tons
1932 Total	5,050,092 Tons	1945 Total	12,113,089 Tons

All Freight — Tons

1932 Inbound	4,102,464 Tons	1945 Inbound	8,679,234 Tons
1932 Outbound	1,178,304 Tons	1945 Outbound	3,826,841 Tons
1932 Total	5,280,768 Tons	1945 Total	12,506,075 Tons

Statistics were also compiled for intervening years between 1932 and 1945. These indicate the tremendous growth of freight movements in and out of the Newark area, resulting from the intense industrial activity during the war period.

In 1939, just before the War, there were 7,863,942 tons of freight in and out of the Newark area. At the peak of the war activity, in 1944, this figure had almost doubled and totaled 14,349,888 tons of in-bound and out-bound freight. The slacking off of war production between 1944 and 1945 was reflected in the decrease of approximately two million tons between 1944 and 1945.

The 1932 survey of the Port of New York Authority was to determine the tonnage cleared in the Newark area by each freight handling facility operated by the railroads. From the figures, it was possible to determine the feasibility of combining certain of these facilities in order to achieve greater economy of operation, both to the railroad and to the shipper. The 1932 studies indicated that several freight stations should be consolidated, but, because of various circumstances, none of the recommendations have been carried out, and little progress has been made toward unification. The recent studies show what has occurred during the intervening years since 1932, from the standpoint of freight handled and also the changes in operating conditions at the various terminals which have occurred since 1932.

While some of the stations have become less important in the transportation network, other facilities have increased their capacities. None of the stations or terminals have been completely abandoned, however.

Obviously, it would be advantageous to Newark if some of the numerous small freight stations could be consolidated in locations where traffic to and from the terminal would best serve the shipper and at the same time reduce congestion on the streets

of Newark. It is recommended that the City co-operate with the Port of New York Authority in vigorously pursuing this objective.

The increase in motor truck traffic and its subsequent effect on the over-all transportation picture in the Newark Area has a vital bearing on the future of the railroad freight facilities.

During the intense industrial activity which took place during the War, and immediately thereafter, the railroads continued to handle a large proportion of the freight movements. In the light of conditions in the postwar period, when industrial activity presumably will become less intense, it is entirely possible that the railroads will find it in their own interest to close some of their less important terminals.

The 1932 study by the Port of New York Authority led to the conclusion that it would be feasible to close certain stations and enlarge the facilities of others, to give both carload and less-than-carload service. The more recent check made by the Authority seems to confirm the desirability of continuing efforts toward unification. As an example — the Pennsylvania Railroad River Street Terminal in Newark causes a conflict in traffic in the vicinity of the Pennsylvania Station, and its location near the heart of the City is not conducive to improving the appearance of that part of Newark. While, in recent years, business has materially increased at this terminal, the possibility of combining this station with others should be further explored. Likewise, the Broad Street facilities of the Central Railroad of New Jersey are located near the heart of the commercial district and as long as it remains it offers obstacles toward the further development of that section of the City.

There are other facilities which also should be combined to the advantage of the railroad, the shipper, and the City of Newark.

Truck Transportation

As stated previously, there has been a tremendous increase in freight transportation by truck in the Newark area since 1932. At the present time, twice as much mixed merchandise freight is moving by highway as is moved by rail. The cost of handling freight in the northern New Jersey area is higher than in other sections of the country, resulting in increased cost to the shipper. This increased cost is greater in connection with mixed package freight, which requires assembly or sorting at terminal platforms and special pick up and delivery service at the terminal and store door. These facts lead to the conclusion that it would be advantageous to effect a unification of such terminals in the Newark area.

On April 20, 1945, the Port of New York Authority submitted a report on union motor truck terminals for northern New Jersey. This report, based on a careful survey of costs of shipping and receiving freight in the Newark area, concluded that a union motor truck terminal should be constructed. While the survey covered all of northern New Jersey, it was found that out of a total of 5,000 tons distributed daily by truck, in less than truckload lots, more than one-half, or 2,550 tons, was distributed in Essex and Union Counties. The report concluded, therefore, that the terminal should be located in the Newark area.

Having determined that such a terminal was necessary, and could be justified on the basis of tonnage expected to be handled, the report concluded that the first undertaking of this nature should be in Newark with a subsequent terminal to be established in Hudson County.

In selecting a specific location for the proposed union truck terminal, the Port of New York Authority asked the co-operation of the Central Planning Board and tentative sites were submitted for consideration. It was generally agreed that the terminal should be

located reasonably close to Route 25 in the easterly part of Newark and that it should contain at least twenty acres to provide for the initial establishment of a freight platform for motor truck freight only, having a capacity of 2,000 tons a day, and that a second freight platform of a similar capacity would be established later to handle rail, water, air, and steamship pier freight.

A definite site was selected, lying along Delancey Street, east of Stockton Street, in Newark. After public hearings and after a favorable report by the Planning Board, definite steps were taken by the Port Authority to acquire this property. Construction of the building at an estimated cost of two and a half million dollars has recently begun.

Advantages to the City of such unification are readily apparent. It will not only reduce the cost of handling package freight, but will also relieve the congestion on the streets in Newark by consolidating much of this traffic at one easily accessible place.

While there will always be a need for other truck terminals, the construction of the Port Authority's facility will be a great step forward, and it is hoped that additional unification steps can be taken in the future to further simplify the freight movement by trucks, throughout the area.

Grade Separations

Because of the fact that all main line railroads in Newark are either depressed or elevated, no serious grade crossing problem exists. There are a number of grade crossings on branch lines, but because of the infrequency of service and the relatively light traffic over these crossings, vehicular delay is not serious and there have been few accidents in the past.

The only crossing that merits serious consideration for immediate separation is that of Mt. Prospect Avenue and the Greenwood

Lake Branch of the Erie Railroad in North Newark. This crossing has four tracks and is protected by a manually operated gate and watchman. The street is one of the most important major thoroughfares in the City and carries a heavy volume of traffic. It is also used by several existing and proposed transit lines. The following factors favor grade separation:

1. The street grade could be easily adjusted to provide an underpass under the railroad.
2. Width of the street is sufficient to permit the construction of an underpass without maternal property damage.
3. The grade of the Railroad at Mt. Prospect Avenue is such that it could be raised and the depth of subway decreased.
4. It probably would be possible to reduce

the number of tracks from four to two.

5. The elimination of the existing expensive form of crossing protection would justify substantial expenditure by the Railroad.

Summer Avenue, lying east of Mt. Prospect Avenue, also crosses the Erie at grade. This street extends into Belleville but ends at William Street and does not carry as much inter-city traffic as Mt. Prospect Ave.

The present manual gate protection should suffice in the future in view of the fact that a grade separation at that point would be quite expensive, because of the six tracks crossing the street and the substantial property damage that would result from the improvement.

While this separation may be needed in the future, it is not recommended for immediate consideration.

SCHOOLS AND RECREATION

Within the past decade or so, there has been a national trend toward shortening the number of hours worked weekly by the average American, thus giving him more leisure time than he ever enjoyed before. Most schools still operate on the five-day week and nine month year, and the school child has much free time outside of school hours. Recognition of the community's responsibility in providing facilities to be used for recreational purposes, both by children and adults during their leisure time, is now general throughout the country. Problems of juvenile delinquency arising out of the war, the increasing traffic hazards on city streets, and the growing realization that lack of public open spaces is one cause of urban blight, places the subject of public recreation very much in the forefront at the present time. There is little disagreement with the thesis that playgrounds, parks, and community centers are as necessary to the community's well-being as schools, hospitals, or other public services.

Newark is an old city with a high population density. It contains little vacant land except that located in the industrial meadows. Many of its congested areas contain only a meagre amount of public open space and as yards, are small, children are virtually forced into the streets to find a place to play near their homes. Fortunately, the Essex County Park Commission has developed a splendid system of large parks and neighborhood parks both in Newark and other parts of Essex County. The greatest need is for neighborhood playgrounds and community centers.

Newark long has recognized the close relationship between education and recreation, and its co-ordinated system of schools and supervised playgrounds is widely and favorably known. It is considered the most economical method of providing recreation. In modern city planning, the school is recognized as the logical center of community

life — a place where a wide variety of activities should be carried on and participated in by all residents of the neighborhood. The proper location of these facilities is highly important, and they must be co-ordinated with plans for major streets, transportation, and zoning.

The necessity for re-building and rehabilitating large areas of obsolete property in Newark has previously been emphasized. The development of adequate public recreation facilities as an integral part in such a program is essential.

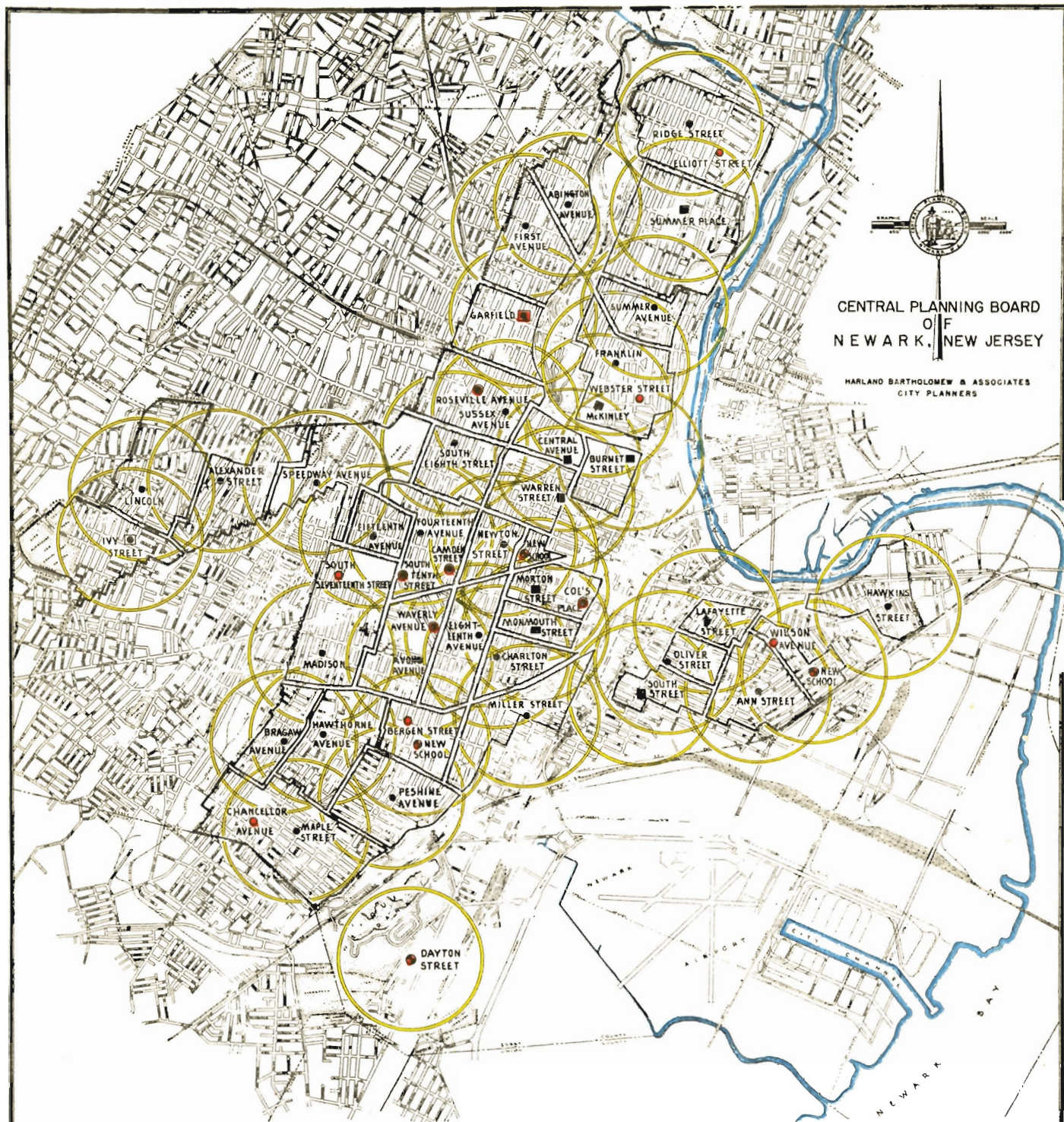
Proposed System of Elementary Schools and Playgrounds

Plate No. 26 shows the proposed system of elementary schools and playgrounds. Circle of one-half mile radius are drawn around each of the proposed school locations and the boundaries of the neighborhoods the schools are intended to serve are indicated. Industrial and Commercial areas have been excluded from the proposed system of neighborhoods.

The plan has been designed to provide an elementary school and playground for each residential area of the city and it has been co-ordinated with plans for re-developing and renovating the blighted areas of Newark. The proposed system is also based on future population requirements and estimates.

Practically all of the Newark schools occupy sites that are much smaller than the minimum standards generally accepted by school and recreational authorities. Most of the schools were built before there was a full recognition of the close relationship existing between education and recreation, and their enlargement will be expensive.

The proposed system is essentially a rearrangement of existing schools as there is no undeveloped territory in the city where new population growth will require an expanded school system. Almost all present school sites are too small to provide ade-



CENTRAL PLANNING BOARD
OF
NEWARK, NEW JERSEY

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS

CITY OF NEWARK, NEW JERSEY PROPOSED SYSTEM OF ELEMENTARY SCHOOLS & PLAYGROUNDS

LEGEND

- SCHOOLS TO REMAIN AS PERMANENT PART OF SYSTEM-SITES TO BE ENLARGED
- SCHOOLS TO BE CONVERTED TO JUNIOR HIGH SCHOOLS
- SCHOOLS TO BE CONVERTED TO COMBINED JUNIOR HIGH & ELEMENTARY SCHOOLS
- SCHOOLS TO BE ABANDONED
- SCHOOLS TO BE REBUILT ON NEW SITE WHEN AREA IS REDEVELOPED
- NEW SCHOOLS

NOTE: OUTLINED AREAS REPRESENT NEIGHBORHOODS
EACH CIRCLE INDICATES AREA WITHIN HALF MILE OF SCHOOL FACILITIES

INFORMATION FOR EAST MAP FURNISHED BY THE BUREAU OF
SURVEYS, DEPARTMENT OF PUBLIC WORKS, CITY OF NEWARK

COPYRIGHT 1944 BY THE
CENTRAL PLANNING BOARD OF NEWARK, NEW JERSEY

2-11-44

quate playgrounds, and where the school is properly located to serve the future needs of the community, site enlargement is recommended. No specific property to be acquired is shown on the plan but in general, the entire block in which the school is located, should be acquired unless the presence of very expensive property makes the cost prohibitive or other plans for the area makes a different arrangement desirable. Even if school sites were expanded to include the entire block, the area would still be less than the minimum standard of five acres, but conditions in Newark preclude general adherence to the standard.

The proposed elementary school system is based on the gradual transformation of the educational plant to one in which there would be elementary schools teaching kindergarten to the sixth grade inclusive, junior high schools containing grades 7 to 9 inclusive, and senior high schools teaching the 10th, 11th, and 12th grades. The present system is partially on this basis and lends itself well to complete transformation to the 6-3-3 system over a period of years. (See Table 15 for data pertaining to Present Elementary School Systems).

The proposed system is designed to eliminate as much over-lapping of service areas as possible, to eliminate obsolete structures, and to make the school and playground a real center for community activities in every neighborhood. Table 16 shows present and estimated future school enrollment.

The present system is composed of 49 elementary schools and one junior high school or a total of 50 elementary and junior high schools. The proposed system will contain 40 elementary schools, two of which will contain junior high school facilities, 11 junior high schools, and 2 occupational schools, a total of 53.

Of the present 40 elementary schools, 26 will be retained at their present location with enlarged sites; two will remain at their pres-

ent location but will serve as combined junior high schools and elementary schools with enlarged sites; seven will be converted to junior high schools; nine will be rebuilt either at the present site or on a new one when the area which they serve is redeveloped, and five will be abandoned. The new system will require four new schools in addition to the ones to be rebuilt in connection with redevelopment. A summary of the recommended system follows:

A. Elementary Schools to remain as permanent part of school system with enlarged sites:

1. Hawkins Street
2. Ann Street
3. Lafayette Street
4. Oliver Street
5. Ridge Street
6. Summer Avenue
7. Franklin Street
8. Abington Avenue
9. First Avenue
10. Sussex Avenue
11. South Eight Street
12. Alexander Street
13. Lincoln
14. Fifteenth Avenue
15. Fourteenth Avenue
16. Newton Street
17. Eighteenth Avenue
18. Avon Avenue
19. Madison Avenue
20. Bragaw Avenue
21. Hawthorne Avenue
22. Maple Avenue
23. Peshine Avenue
24. Miller Street
25. Charlton Street
26. Speedway

TABLE 15

Present Elementary School Data

Name of School	Year Built	Addition	Size Site	Estimated Capacity	1944-1945 Enrollment	Peak Enrollment	Grades Housed at Present	Class of Playgrounds	Playground Areas in Sq. Ft.
Abington Avenue	1900	3	.90	1,675	1,393	2,046	K-8	D	23,490
Alexander Street	1885	3	1.18	1,240	1,125	1,680	K-8	D	11,354
Ann Street	1891	3	2.34	1,850	1,411	2,253	K-8	D	73,300
Avon Avenue	1905	3	1.27	1,125	1,235	1,653	K-8	D	34,100
Bergen Street	1900	2	1.34	1,500	1,505	1,786	K-8	B	35,460
Bragaw Avenue	1928	1	1.15	1,250	1,205	1,526	K-8	"	11,852
Burnett Street	1868	2	1.04	1,060	548	1,857	K-6 & 10	C	16,016
Camden Street	1883	3	.78	975	757	1,240	K-6	C	19,376
Central Avenue	1871	2	.98	1,100	924	1,384	K-8	A	65,900
Chancellor Avenue	1930	1	2.80	1,100	771	974	K-8	A	19,735
Charlton Street	1895	3	.93	1,600	1,319	1,990	K-8	A	4,000
Coes Place	1902	1	.17	250	216	290	K-4	"	16,396
Eighteenth Avenue	1871	3	.88	1,250	1,018	1,090	K-6	B	24,800
Elliott Street	1871	4	.88	1,100	979	1,852	K-8	"	26,046
Fifteenth Avenue	1895	3	.92	1,400	1,210	1,965	K-8	C	17,700
First Avenue	1928	1	1.08	700	701	1,013	K-6	B	16,290
Fourteenth Avenue	1906	1	1.12	1,000	785	1,466	K-8	"	22,321
Franklin	1889	4	1.04	1,350	1,116	2,137	K-8	A	40,672
Garfield	1894	2	1.38	1,150	956	1,573	K-8	A	23,000
Hawkins Street	1878	2	1.10	1,000	943	1,490	K-8	D	56,421
Hawthorne Avenue	1897	3	1.32	1,050	450	1,359	K-5 & 9	A	26,880
Ivy Street	1931	2	2.00	1,300	543	849	K-9	B	31,385
Lafayette Street	1903	1	1.11	1,550	1,270	2,534	K-8	D	11,010
Lincoln	1908	1	1.38	900	629	1,429	K-8	D	6,870
McKinley	1899	4	1.40	1,350	1,050	2,639	K-8 & 9	C	14,204
Madison	1904	3	1.28	1,100	691	1,268	K-8	A	13,440
Maple Avenue	1926	1	1.50	1,200	1,171	1,712	K-8	A	26,237
Miller Street	1880	3	.43	1,340	1,319	1,990	K-8	B	33,879
Momouth Street	1886	1	.26	840	738	1,040	K-8	A	33,700
Morton Street	1851	5	1.47	1,450	1,222	1,770	K-8	"	30,241
Newton Street	1871	4	1.58	1,360	1,183	2,198	K-8	"	15,600
Oliver Street	1869	3	1.25	1,375	979	1,852	K-8	B	11,000
Peshine Avenue	1911	1	1.15	1,300	1,293	1,947	K-8	"	16,443
Ridge Street	1911	1	1.15	650	566	739	K-8	C	30,390
Robert Treat	1887	4	1.93	1,725	857	1,947	K-8	C	13,584
Roseville Avenue	1894	1	.30	400	379	466	K-9	"	16,566
South Street	1900	1	.57	600	572	1,097	K-7	"	19,211
South Eighth Street	1873	2	.90	1,100	1,053	1,383	K-8	C	20,000
South Seventeenth Street	1911	1	1.90	1,275	1,114	1,923	K-8	A	23,244
South Tenth Street	1870	3	.72	900	791	1,055	K-8	"	17,584
Speedway Avenue	1917	1	1.0	325	197	443	K-4	C	16,566
Summer Avenue	1883	2	.93	1,000	896	1,018	K-8	"	19,211
Summer Place	1903	1	.53	320	297	424	K-6	"	20,000
Sussex Avenue	1900	1	.63	750	746	1,099	K-8	A	23,244
Warren Street	1892	1	1.25	725	608	1,290	K-6	"	17,584
Waverly Avenue	1891	1	.65	700	600	819	K-6	"	16,566
Webster Street	1911	1	1.20	1,400	777	1,724	K-9	A	20,000
Wilson Avenue	1881	4	1.38	1,325	797	2,298	K-8	A	17,584

TABLE 16

Present and Estimated Future Population and School Enrollment

Year	Total Newark Population	Total Enrollment (1)	K-6	Enrollment 7-8-9	10-11-12	Percent Total Enroll. to Total Pop.	Percent Enr. K-6 to Total Enr.	Percent Enr. 7-8-9 to Total Enr.	Percent Enr. 10-11-12 to Total Enr.
1920	414,524	77,011	60,591	12,513	3,907	18.6	78.5	16.3	5.2
1925	428,000	80,937	61,149	14,263	5,525	18.9	75.6	17.6	6.8
1930	442,337	81,300	58,206	16,393	6,701	18.4	71.7	20.5	8.2
1935	435,800	79,235	48,346	19,655	11,234	18.2	61.0	24.8	14.2
1940	429,760	70,002	39,086	18,206	12,710	16.3	55.7	26.1	18.2
1945	430,000	58,615	33,789	15,230	9,587	13.6	57.7	26.0	16.3
1950	444,000 (Est)	57,800 (Est)	34,600 (Est)	14,500 (Est)	8,700 (Est)	13.0 (Est)	60.0 (Est)	25.0 (Est)	15.0 (Est)
1955	451,000 (Est)	60,800 (Est)	36,500 (Est)	15,200 (Est)	9,100 (Est)	13.5 (Est)	60.0 (Est)	25.0 (Est)	15.0 (Est)
1960	458,000 (Est)	64,200 (Est)	38,600 (Est)	16,000 (Est)	9,600 (Est)	14.0 (Est)	60.0 (Est)	25.0 (Est)	15.0 (Est)
1965	465,000 (Est)	67,500 (Est)	40,500 (Est)	16,900 (Est)	10,100 (Est)	14.5 (Est)	60.0 (Est)	25.0 (Est)	15.0 (Est)
1970	472,000 (Est)	70,800 (Est)	42,450 (Est)	17,835 (Est)	10,515 (Est)	15.0 (Est)	60.0 (Est)	25.0 (Est)	15.0 (Est)

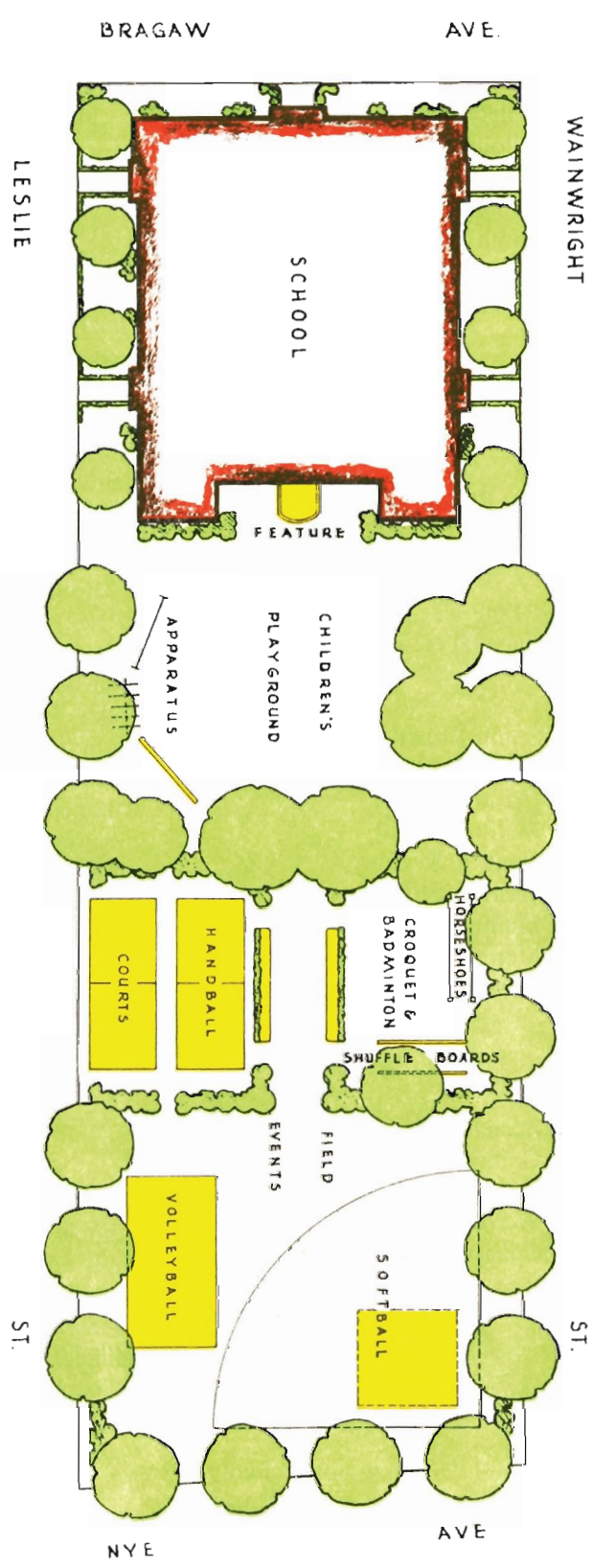
(1) Exclusive of Special Classes.



A SUGGESTED PLAN FOR THE DEVELOPMENT OF THE DAYTON STREET SCHOOL, COMMUNITY CENTER & PLAYGROUND

CENTRAL PLANNING BOARD
NEWARK, NEW JERSEY

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNING CONSULTANTS
SAINT LOUIS, MISSOURI



A SUGGESTED PLAN FOR THE DEVELOPMENT OF AN ENLARGED BRAGAW AVE. SCHOOL SITE

CENTRAL PLANNING BOARD OF
NEWARK, NEW JERSEY

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS

- B. Elementary Schools to be converted to Junior High Schools with enlarged sites:

1. Wilson Avenue
2. Elliott Street
3. Webster Street
4. Robert Treat
5. South Seventeenth Street
6. Chancellor Avenue
7. Bergen Street

- C. Elementary Schools to be used as combined Junior High Schools and Elementary Schools:

1. Ivy Street
2. Garfield

- D. Elementary Schools to be rebuilt on present or new sites when area is re-developed:

1. South Street
2. Summer Place
3. McKinley (7th)
4. McKinley (8th)
5. Central Avenue
6. Warren Street
7. Monmouth Street
8. Morton Street
9. Burnett Street

- E. Elementary Schools to be abandoned:

1. Roseville
2. Camden
3. South Tenth Street
4. Waverly Avenue
5. Coes Place

- F. New Schools:

Four (including Dayton Street)

Plates No. 27 and 28 show respectively, plans for the Proposed Dayton Street School and enlargement of Bragaw Avenue School.

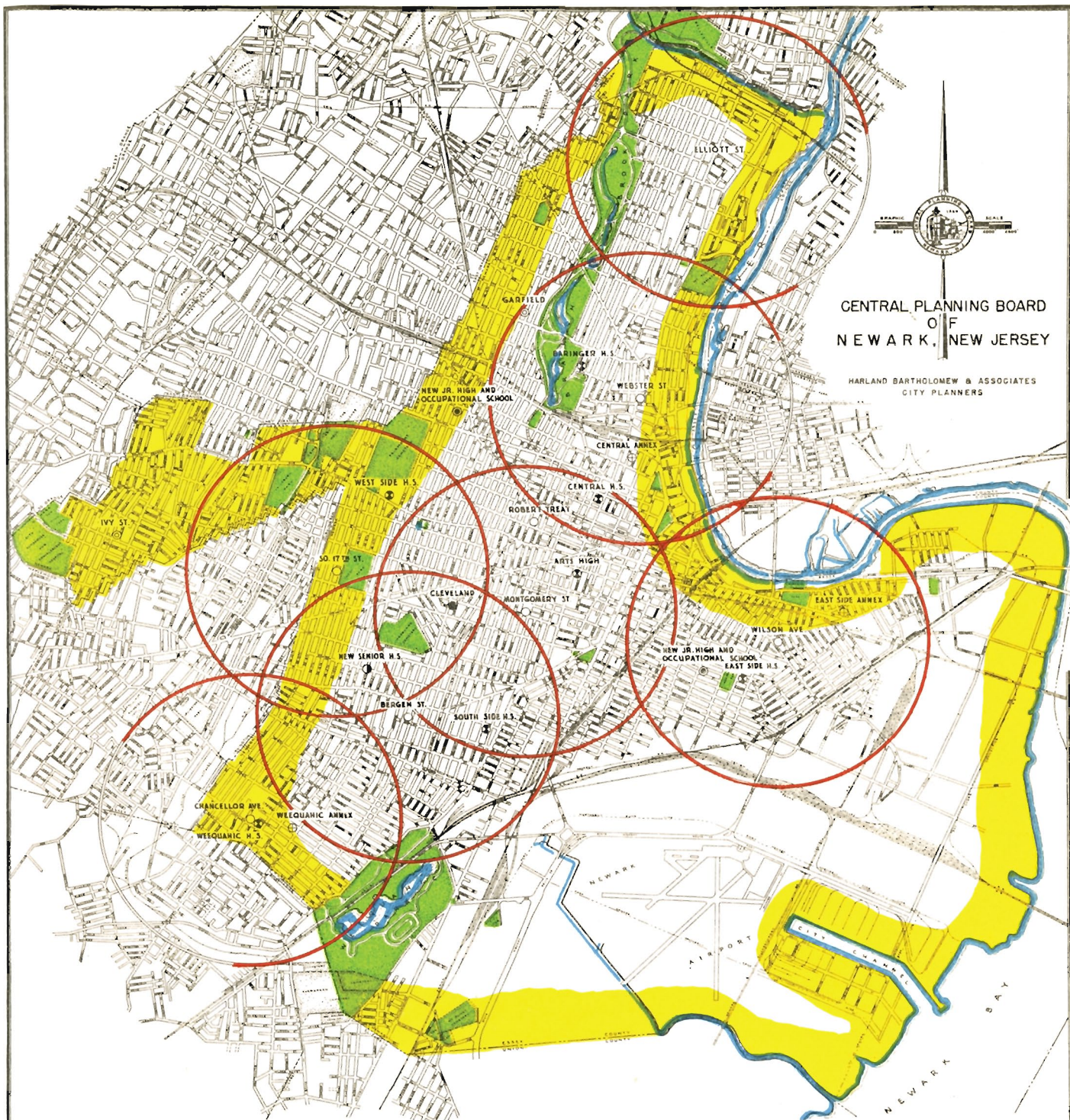
Present and Proposed Junior and Senior High Schools

Junior High Schools

Plate No. 29 shows the present and proposed Junior and Senior High Schools and playfields. Circles around the schools are drawn with a one-mile radius to indicate the adequacy of the service now given by these schools. At the present time, there is only one school devoted entirely to Junior High School purposes. This is Cleveland, located at Bergen street and 11th Avenue.

The proposed Junior High School system is to be composed principally of Elementary Schools which are to be converted to Junior High School use. These schools include Chancellor Ave., Bergen Street, South 17th Street, Montgomery Street, Robert Treat, Elliott Street, Webster Street and Wilson Avenue. It is proposed to use two of the existing Elementary Schools for combined elementary and junior high purposes. These are Ivy Street and Garfield. In view of the expected enrollment in the Junior High School system after it has been fully established, it will be necessary eventually, to erect a new Junior High School on the east side in the vicinity of Independence Park and another one in the northwest part of the city in the vicinity of Orange Street and Roseville Avenue.

Inasmuch as all of the existing elementary schools and the present Cleveland Junior High School, which will form the junior high school system, occupy small sites, it will be necessary to enlarge the areas to provide sufficient space for playfields. While it is not practical to approach the generally accepted minimum size of playfields in Newark, generally speaking, the entire block in which the school is located should be acquired and developed for school and playfield use. Following is a list of the schools comprising the



CENTRAL PLANNING BOARD
OF
NEWARK, NEW JERSEY

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS

CITY OF NEWARK, NEW JERSEY PROPOSED SYSTEM OF JUNIOR AND SENIOR HIGH SCHOOLS AND PLAYFIELDS

LEGEND

- PRESENT JUNIOR HIGH SCHOOLS TO BE RETAINED
- PRESENT ELEMENTARY SCHOOLS TO BE CONVERTED TO JUNIOR HIGH SCHOOLS
- ⊙ PRESENT ELEMENTARY SCHOOLS TO BE CONVERTED TO COMBINED JUNIOR HIGH AND ELEMENTARY SCHOOLS
- ⊕ PROPOSED NEW JUNIOR HIGH AND OCCUPATIONAL SCHOOLS
- ⊖ PRESENT SENIOR HIGH SCHOOLS TO BE RETAINED
- ⊗ PRESENT SENIOR HIGH SCHOOLS TO BE ABANDONED
- ⊙ PROPOSED NEW SENIOR HIGH SCHOOL

NOTE: EACH CIRCLE INDICATES AREA WITHIN ONE MILE OF JUNIOR HIGH SCHOOL FACILITIES

INFORMATION FOR BASE MAP FURNISHED BY THE BUREAU OF
SURVEYS, DEPARTMENT OF PUBLIC WORKS, CITY OF NEWARK.

COPYRIGHT 1944 BY THE
CENTRAL PLANNING BOARD OF NEWARK, NEW JERSEY

4-11-44

junior high school system, together with estimated future enrollment:

Chancellor Avenue	1510
Bergen Street	1490
South 17th Street	1295
Cleveland	1515
Montgomery Street	1050
Robert Treat	1735
Ivy Street	1130
Garfield	1050
Elliott Street	1565
Webster Street	1240
Wilson Avenue	1480
New East Side	1530
New Northwest	910

It is recommended that all of the above schools provide additional playfield areas adjacent to the building except in the case of South 17th Street which is directly across from West Side Park, and Chancellor, which now has a large playfield adjacent to the school.

The proposed junior high school system will give excellent service to all parts of the City and with relatively little duplication of service area. The playfields thus provided, will supplement the elementary school playgrounds and will give much needed additional open spaces within the residential areas.

The Board of Education has proposed the construction of four new occupational schools, two for boys and two for girls, in widely separated localities through the City. These schools are designed to provide training on a junior and senior high school level for slow students, or students who are not adaptable to the regular high school work, but who can be trained for certain unskilled or semi-skilled jobs in industry.

Inasmuch as a new junior high school program is being developed for the City, it would be more desirable either to incorporate the occupational program in the regular junior high schools, or to establish the new

occupational schools adjacent to the new junior high schools in order to make joint use of playgrounds and other facilities such as gymnasiums, cafeterias, auditoriums, and the like. Under this plan, two occupational schools would be built, one in the Ironbound and the other in the Roseville section.

As shown on Table 16, it will be necessary to accommodate 17,835 students in the future junior high school system. This is an increase of approximately 2,500 over the enrollment in grades 7-9 in 1945. By removing the eighth grade students from many of the elementary schools, the capacity of those buildings will be somewhat increased. There were in 1944-45, approximately 9,600 students in the 10th, 11th, and 12th or Senior High School grades. On April 30, 1946, this number had decreased to 9,257. The present enrollment is materially lower than between 1935-1940, but it is anticipated that the future senior high school enrollment will show an increase over present figures. (See Table 16).

Senior High Schools

There are at present seven senior high schools, three of which have annexes. The senior high schools are well distributed geographically; the only area of the City that is not relatively close to a senior high school, being the Vailsburg section in the western part of the City.

Overcrowded conditions are prevalent in most of the high schools as evidenced by the necessity for using annexes and double shifts. It is estimated that there is at present, an overload of 457 pupils representing the difference between the effective capacity of the school buildings and present enrollment. It is also estimated that there will be approximately 500 pupils displaced by changes in buildings made under the Board of education's modernization program now going forward and that 537 pupils now accommodated in Arts High, need new facilities.

After the school system has been converted to the K-6-3-3 system, the senior high schools will be relieved of some of their present burden, but overcrowded conditions will still exist, especially if the anticipated increase in enrollment takes place. In 1944-45, the present high schools had a total enrollment of 12,867 of which 9,587 were in grades 10-12. In view of this situation, it will be necessary to construct one new senior high school in the near future. As overcrowding is not prevalent in West Side and Weequahic High Schools, a location somewhere in the southwestern part of the City will be needed. By construction of the new high school, it should be possible to eliminate the present annexes. This will result in obvious economies in operation and administration.

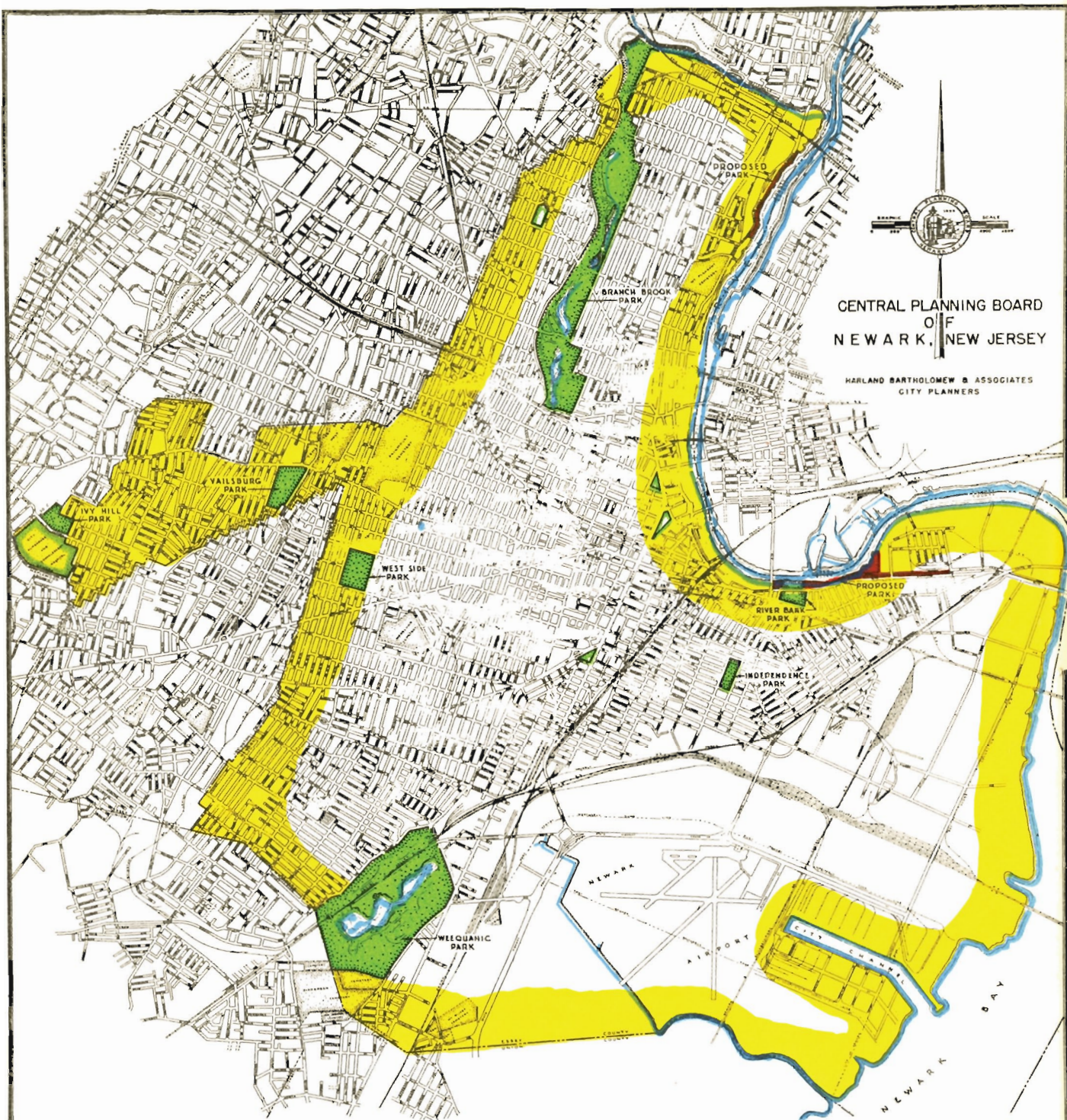
With the exception of Weequahic and West Side High Schools, all of the others occupy inadequate sites. Barringer, located directly across the street from Branch Brook Park is badly in need of major reconstruction and increased playfield facilities. When a new school is built to replace the present Barringer, it is recommended that negotiations be entered into with the Essex County Park Commission to make a site within Branch Brook Park available for the new building near the present location. Consideration should be given to closing and rearranging certain streets in the vicinity of the present and proposed locations. South Side High School is very badly in need of additional playfield space and it is recommended that the area of the school site be increased by acquiring the remainder of the block in which it is located as well as the property fronting on the south side of Milford Avenue between West Bigelow and West Alpine Streets and closing Milford Avenue between the present school and proposed addition. Similarly, it is recommended that the site area of East Side be increased by acquiring adjacent property to the north. Because of the proposed location of Central High and Arts High Schools in Newark, enlargement of these sites is impractical and play activities for the students of these two schools must be conducted in other locations.

The proposed system of junior and senior high school playfields is supplemented by playfields now existing in public parks.

Present and Proposed System of Large Parks and Neighborhood Parks

Plate No. 30 shows the present and proposed large park and neighborhood park system for Newark. Because of the farsighted planning in the early days of the Essex County Park Commission, Newark now possesses a number of large parks which are surpassed by few cities in the country. In addition to Weequahic Park and Branch Brook Park, the Essex County Park Commission has also developed several smaller areas which serve the neighborhoods in which they are located. These include Ivy Hill Park, Vailsburg Park, West Side Park, River Bank Park, and Independence Park. These facilities are well distributed throughout the City and when supplemented by the proposed system of elementary school playgrounds and junior and senior high school playfields, the City will have a well balanced recreational system, serving all neighborhoods and furnishing facilities for the use of all citizens, both young and old.

Based on the generally accepted standard of one acre of park to every 100 persons of population, Newark is quite far down the list in comparison with other cities in the country. However, the two large reservations in the Essex County Park system are available for use by Newark citizens and even though they are not located in the City of Newark, they are actually a part of the City's park system. Because of the fact that very little vacant land is available within the corporate limits of the City, it is impractical to attempt to acquire additional large parks



CITY OF NEWARK, NEW JERSEY PRESENT AND PROPOSED LARGE PARKS AND NEIGHBORHOOD PARKS

- LEGEND
- PRESENT LARGE PARKS AND NEIGHBORHOOD PARKS
 - PRESENT PUBLIC OPEN SPACES
 - PROPOSED NEW PARKS

INFORMATION FOR BASE MAP FURNISHED BY THE BUREAU OF
SURVEYS, DEPARTMENT OF PUBLIC WORKS, CITY OF NEWARK.

COPYRIGHT 1944 BY THE
CENTRAL PLANNING BOARD OF NEWARK, NEW JERSEY

4-7-44

and neighborhood parks. The primary need is for more and large supervised children's playgrounds and playfields.

A study has been made of the possibility of developing the Passaic River waterfront for park purposes and two specific recommendations are made. These are:

1. That the property lying between the McCarter Highway and the Passaic River, extending from a point near Verona Avenue to a point near Chester Avenue, be acquired by the Essex County Park Commission and used for boating facilities. This is a narrow strip of land which should be protected against obnoxious uses which might be established along the river in this part of the city and there are now several boat clubs operating in this vicinity.
2. That the strip of land between Raymond Boulevard and the Passaic River extending eastward from the Jackson Street Bridge to the new Franklin D. Roosevelt Public Housing Project at Chapel Street be developed by the Essex County Park Commission as a riverfront park. The City now owns part of this property which should be conveyed to the Park Commission. As part of this improvement, is also recommended that Raymond Boulevard be made a dual-lane boulevard from Lockwood Street to a point west of the Jackson Street Bridge. (See Plate No. 16). This part of the improvement is the responsibility of Newark. The only difference between the area shown for park development on Plate No. 30 and the improvements described in the Major Street Plan is that an additional area adjoining the Roosevelt Public Housing Project be made a part of this park.

It will be highly desirable if the City or Essex County Park Commission could acquire all of the property along the Passaic River and develop it for public recreational uses. In view of the intensive industrial development, however, it is not financially feasible to accomplish this aim. The two im-

provements described above are located near the extremities of the City and along main entrance highways and will do much to enhance the appearance of these entries to the central part of the City.

Parkways

Many cities have developed parkway systems in connection with their large parks and recreational areas. Kansas City, Minneapolis, and Louisville are examples of communities which connected their park system with pleasure drives, from which commercial traffic is excluded. Inasmuch as Newark is the center of a metropolitan area, the development of such facilities is the responsibility of the State or County Park Commission. The 1916 City Plan recommended the extension of Branch Brook Park to the north and the development of the Second River valley as a boulevard, extending to the Passaic riverfront and thence along the riverfront to a point near Mt. Pleasant Cemetery. A part of this plan was carried out, mainly, the extension of Branch Brook Park and its improvement to and including part of Belleville and the development of a park drive along the Second River to a point near the Passaic River. Unfortunately, the riverfront park was not developed and the area recommended for acquisition is now unavailable because it is extensively built-up with industrial plants. The suggested acquisition of the narrow strip along McCarter Highway made previously in this chapter represents about all that can be done to salvage the original proposals.

The only parkway in Newark is that section of Oraton Parkway under the jurisdiction of the Essex County Park Commission, and there is little or no opportunity left to provide such facilities in the City. The proposed future system of parkways, together with whatever might be done later by the Essex County Park Commission or the State Highway Department in the less developed areas around Newark, will furnish at least some facilities for this type of recreational use.

PUBLIC BUILDINGS

Newark has numerous monumental public buildings which have been constructed in years past with little regard to the advantages of grouping such structures in a "Civic Center". Had the City Hall, Court House, Hall of Records, and Federal Building all been located adjacent to one another, some place in or near downtown Newark, a group of buildings could have been created which would not only have been imposing architecturally, but would have been a great convenience to the general public which transacts business in these various buildings.

Many cities have recognized the desirability of such a plan, and other communities are currently studying the development of civic centers.

As early as 1912, the original Newark City Planning Commission, while recognizing the advantages of a public buildings grouping, came to the conclusion that because of the scattered location of the City Hall, Court House, Library, and other buildings, such a plan would not be practical. At that time, the Board stated, "While a civic center would add much to the appearance of Newark, its construction would be very expensive. Many improvements more immediately useful must be made before a civic center can be widely considered in Newark. For the present, the City can best improve its condition by so placing its public buildings as to make them of the greatest practical use and harmonious with their surroundings."

At the time the Planning Commission made its report a new Post Office was contemplated, the Hall of Records was being considered as well as a new Museum and an Administration Building for the Board of Education. Later, the Hall of Records was constructed adjacent to the Court House at Market and High Streets, the Museum was built on Washington Street opposite Washington Park, the new Federal Building was located adjacent to the rear of the City Hall, and the Board of Education's Administration Building was built to the rear of the City Hall.

At the present time, there are three distinct public building groups; the County buildings at Market and High Streets, the Municipal Administrative Center, and the Federal Building at Broad and Franklin Streets, while the Museum and Library are near each other on Washington Street, opposite Washington Park.

Thus it is seen that conditions are not much different now than they were thirty years ago. There is still a pressing need for a public auditorium, but with that exception only a few additional public buildings seem to be needed or will be built in the next few years; it is apparent, therefore, that it is not feasible to attempt to develop a civic center group in which all public buildings would be located. Instead, the problem becomes one of using the three present building groups as nucleus for a limited number of future public buildings.

Probable Future Needs for Public Buildings

From the inventory made of existing public buildings and an examination of the need for other types of buildings not now in existence, the following conclusions are reached:

1. The present City Hall and Annex are overcrowded, and numerous municipal agencies occupy rented space. A new building is needed to relieve this situation. If and when such a building is constructed, it is recommended that it be located on the city-owned property east of the City Hall. The structures now occupying this area should be removed. The block is sufficiently large to permit adequate landscaping and a certain amount of off-street automobile parking in connection with the present and future buildings.
2. While no new Federal Building is contemplated at the present time, the site of the present building should be enlarged

by the eventual acquisition of the property on Broad Street which now blocks the present building from view. This property is expensive and it should be purchased gradually by the Federal Government as opportunity arises, in order to enhance the appearance of the Federal Building.

3. A new County Jail Building will be constructed in the near future on a site on New Street between Newark Street and Lock Street. Part of this site is occupied by the present County Jail. The new structure is estimated to cost \$1,800,000. A central location was decided upon because of the convenience of having the jail in close proximity to the Court House.
4. While stated previously that there are no definite plans for the erection of a state office building in Newark, consideration should be given to the proper location of such a structure if it is ever built.

Later, there will be a definite suggestion for a site for a future state building.

For many years, there has been a need for a public auditorium or civic opera house in which various activities could take place of a public and semi-public nature. There are no facilities for such things as symphony concerts, operas, large scale entertainments, and similar activities except in privately-owned property which is not always available when needed and which does not possess the proper facilities for such entertainments. Newark, being the largest city in the State and the center of a large metropolitan area, logically, should be the leader in promoting cultural activities of all types. Lacking proper facilities for such things, it has been most difficult in the past to properly promote them. If such a building is constructed, it could well be made a part of a cultural center, the nucleus of which is already provided by the Library and Museum.

Another pressing need in Newark is a large convention hall or similar structure

which could be used for large-scale activities such as athletic events, exhibits, and large meetings of various kinds. Newark's location would attract many large meetings of national and statewide interest, notwithstanding the fact that it is adjacent to New York City, if proper and adequate facilities are made available.

Summarizing, the foreseeable needs for public buildings in Newark consists of additional administrative office space adjacent to the City Hall, a new public auditorium, and a new convention hall and sports center.

War Memorial Plaza

The Pennsylvania Railroad Station at Market Street and Raymond Plaza West is an important focal point for visitors entering and leaving Newark. The station itself is a magnificent structure whose appearance suffers from its surroundings. Directly opposite the station to the west is a municipally owned block presently leased for open-air parking. The other property opposite the station is occupied by various industrial buildings and privately-owned parking lots. Further west between Mulberry Street and McCarter Highway is located the Center Market and along the south side of Commerce Street are a number of rundown and dilapidated buildings, some of which are used as produce markets. On the north side of Raymond Boulevard, opposite the Market, the property is mostly used for parking lots. Directly west of the Center Market is another block of city-owned property now leased as a parking lot.

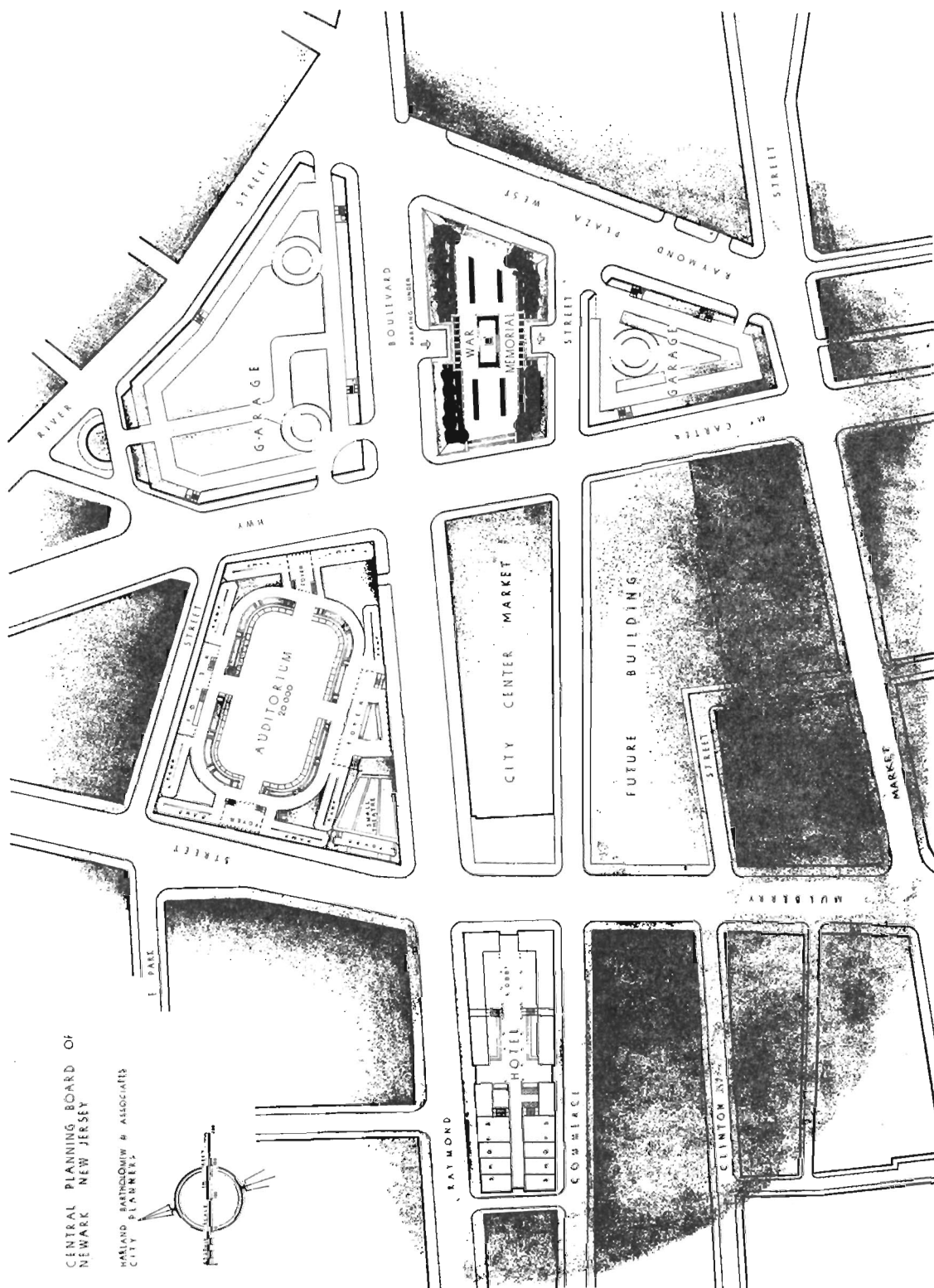
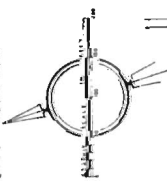
The present blighted condition of the property between Broad Street and the Pennsylvania Station offers an opportunity for the City to create an outstanding development which would transform this civic liability to a civic asset of immeasurable value.

Rehabilitation of this section of the City would have a pronounced effect on prop-

PROPOSED PLAN FOR THE WAR MEMORIAL PLAZA NEWARK, NEW JERSEY

CENTRAL PLANNING BOARD OF
NEWARK, NEW JERSEY

HAYLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS



erty values in the immediate area and throughout downtown Newark and would substantially increase the tax ratables. Besides stabilizing property values and providing increased ratables, improvement of the area would make an inspiring entrance to the City from the east along Raymond Boulevard and from the Pennsylvania Station. The proposed plan of improvement follows:

The necessity for providing attractive and commodious off-street parking areas in and near the central business district in the form of open-deck parking garages, underground parking facilities, and open lot parking areas cannot be over-emphasized. Any plan for civic improvements in or near downtown Newark must keep this necessity uppermost in mind.

As pointed out previously, the geographic location of Newark makes it a logical center for large-scale meetings, conventions, exhibits, athletic events, and other things of that nature. Provision of facilities for such activities would be a great step forward in the general rehabilitation and improvement of the city as a whole. It would not only bring additional business to Newark but would encourage other activities in the vicinity, and would further increase the city's tax ratables and property values. The area under discussion offers an admirable site for such a building.

Newark is also deficient in hotel accommodations and if it is to be a City which will attract large gatherings, there must be some new hotels built. The site under discussion would offer an ideal location for one or more of these structures.

Proposed Plan

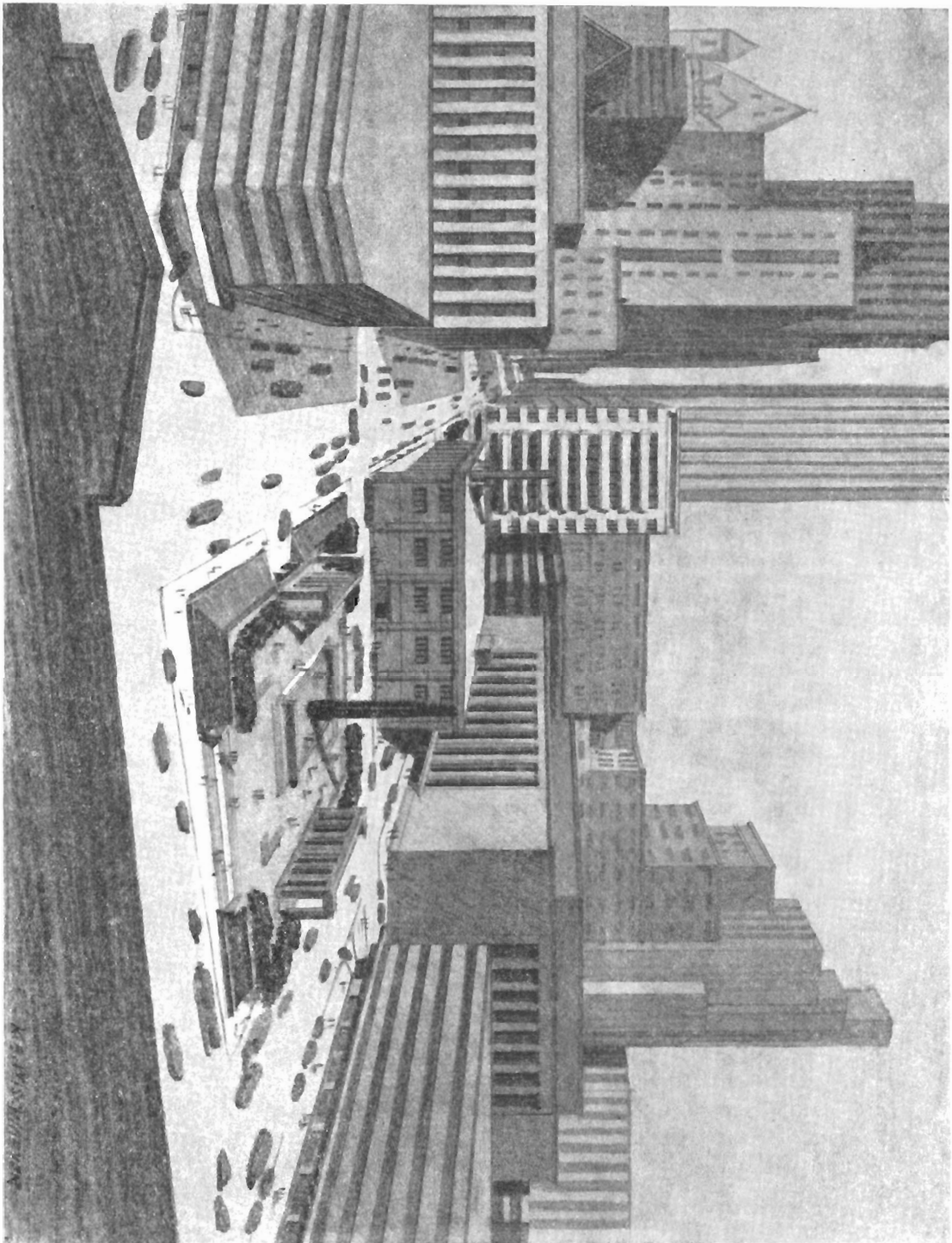
It is proposed to construct a War Memorial Plaza lying between the Pennsylvania Station and the Raymond-Commerce Building occupying the area now owned by the City lying between Raymond Boulevard and

Commerce Street, Raymond Plaza West and Commerce Court. In addition, the development area will include the block bounded by McCarter Highway, River Street and Cherry Street; the block bounded by Raymond Boulevard, McCarter Highway, East Park Street and Mulberry Street; the block bounded by Commerce Street, Raymond Plaza West, Market Street and McCarter Highway and the frontage along the south side of Commerce Street between Mulberry Street and McCarter Highway extending halfway through the block.

The plan is based on the use of the present Center Market for its leased purposes for an indefinite period. It envisages a park-like treatment of the city-owned block opposite the station now used for parking. The area would be slightly elevated, attractive landscaped and provided with parking facilities underground. On the third piece of city-owned property, lying immediately east of the Raymond-Commerce Building, a new hotel is contemplated to be built by private enterprise under leasing arrangements with the City.

The site for the proposed sports arena and convention hall is located north of the Center Market in the block bounded by Raymond Boulevard, McCarter Highway, Mulberry Street and East Park Street. This would be a very large building, having as its main feature, an auditorium or arena seating 20,000 persons which can be used for a variety of purposes, a small theatre seating 1,500 persons, and an exhibition area below the main floor equal in size to the area of the site. This building should attract many large conventions and other events which are now forced to go elsewhere because of the lack of space in Newark.

Two large open deck parking garages are proposed on the two blocks directly south and directly north of the War Memorial Plaza opposite the station. The larger of these two buildings would have a capacity of 3,800 cars while the smaller could accommodate



Perspective View of Proposed War Memorial Plaza

Plate No. 32

1,000 vehicles. On the block to the south of the Center Market is a proposed site for a future State or Federal office building or some other use which would fit in with the general plan of development such as another hotel.

The above development is ambitious, but many of its features can be financed by revenue bonds under leasing arrangements with private enterprise. For example, the two underground parking areas with open plazas above are located on city property and the cost of construction of both the parking facilities and the plaza would be largely offset by revenues derived from parking fees.

The proposed hotel could be financed by private interests under a leasing arrangement with the City for the ground. The two proposed parking garages could be operated in a similar manner wherein the City would acquire the property and lease it to a private operator who would construct the garage buildings at his own expense. In this instance, special legislation might be required to permit the City to undertake the acquisition of this property. Inasmuch as these garages fit in with a comprehensive plan of off-street parking for the downtown Newark area, this legislation should be broad enough to permit the City to carry out the entire parking plan as shown on Plate No. 16. (See p. 79).

Efforts should be made to interest private capital in the erection of the proposed sports arena building. If that cannot be done, the improvement could be financed by a general obligation bond issue, and while it probably would not be entirely self-supporting, the returns from rentals should be sufficient to carry a large part of the financial load. The proposed new State or Federal office building would be financed by other agencies than the City of Newark.

Plate No. 32 is an architect's drawing showing how the complete improvements would appear looking toward Broad Street from the Pennsylvania Station while Plate No. 31 shows the improvements in plan.

Cultural Center

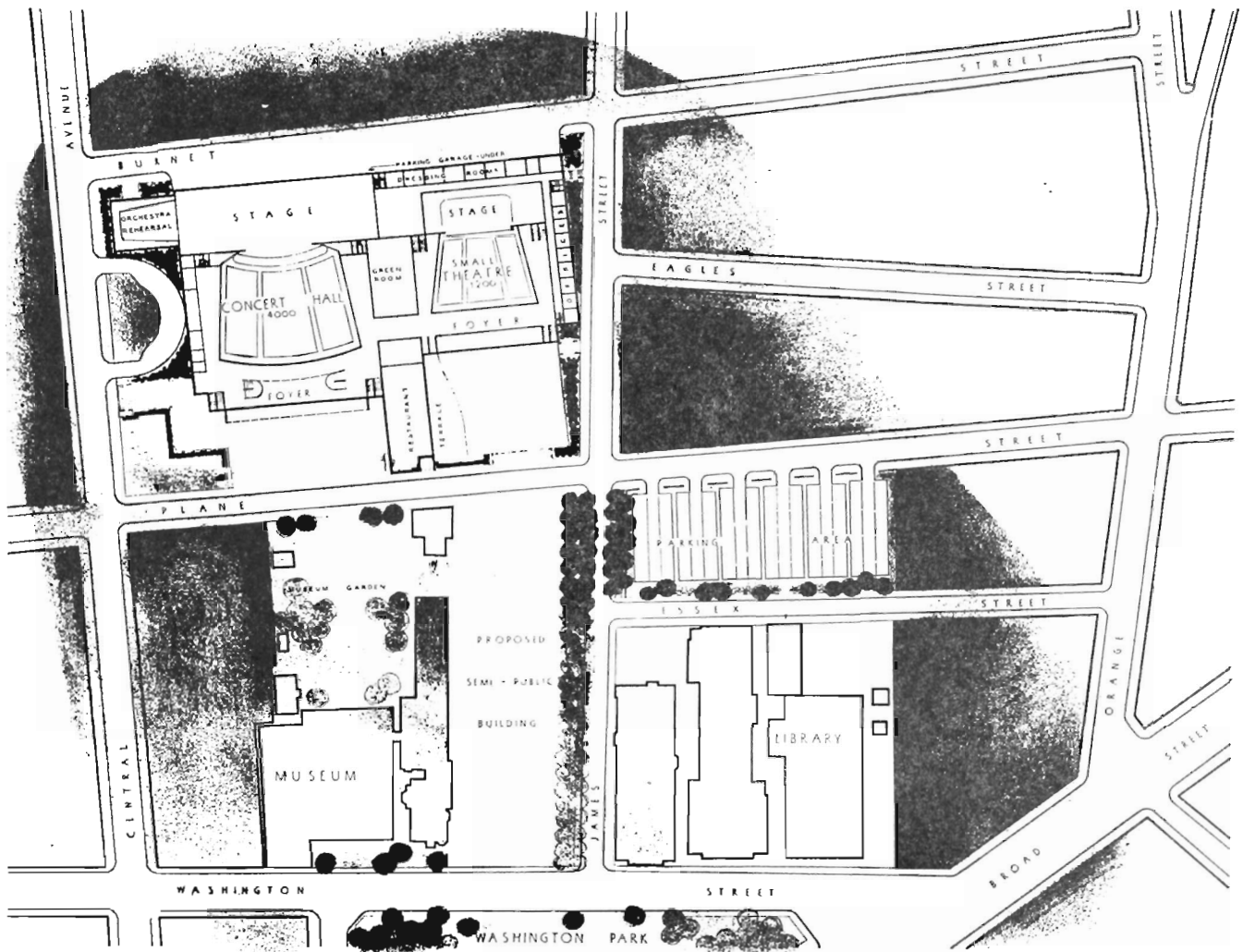
Careful study has been made of various sites and locations for the proposed public Auditorium. In considering such a location, numerous factors were taken into consideration. As a result of studying various phases of the problem of location, it was determined that the most appropriate site would be in the vicinity of the present Museum and Library. The factors studied are as follows:

1. Centrality of Location. The present Library and Museum are near the geographical center of Newark and within a short walking distance of the principal hotels in the City.

In a building such as a public Auditorium which will be visited by large number of people, centrality of location is most important. The building should also be within close proximity to the downtown hotels for convenience to out-of-town visitors.

The suggested location admirably meets this requirement. The Major Street Plan proposes certain street improvements which will improve the accessibility of the Auditorium site. It is proposed to widen Central Avenue from High Street to Broad and Plane Street between Central Avenue and Orange Street. It is also proposed to improve High Street to permit easier access to the central area from the North and West. The proposed Route 25-A Freeway extending from the Stickel Memorial Bridge over the Passaic River to West Orange will enable persons living in the western part of the County and in suburban areas such as the Oranges to reach the Auditorium very easily by way of the Freeway to the Traffic Circle at Clifton Avenue and Eighth Avenue, then over Nesbitt and Lock Streets to Central Avenue and down Central Avenue to the Auditorium. Likewise, the improvement of Bloomfield Avenue and Broadway will improve accessibility from the North and Northwest.

2. Vehicular Access. The Public Audito-

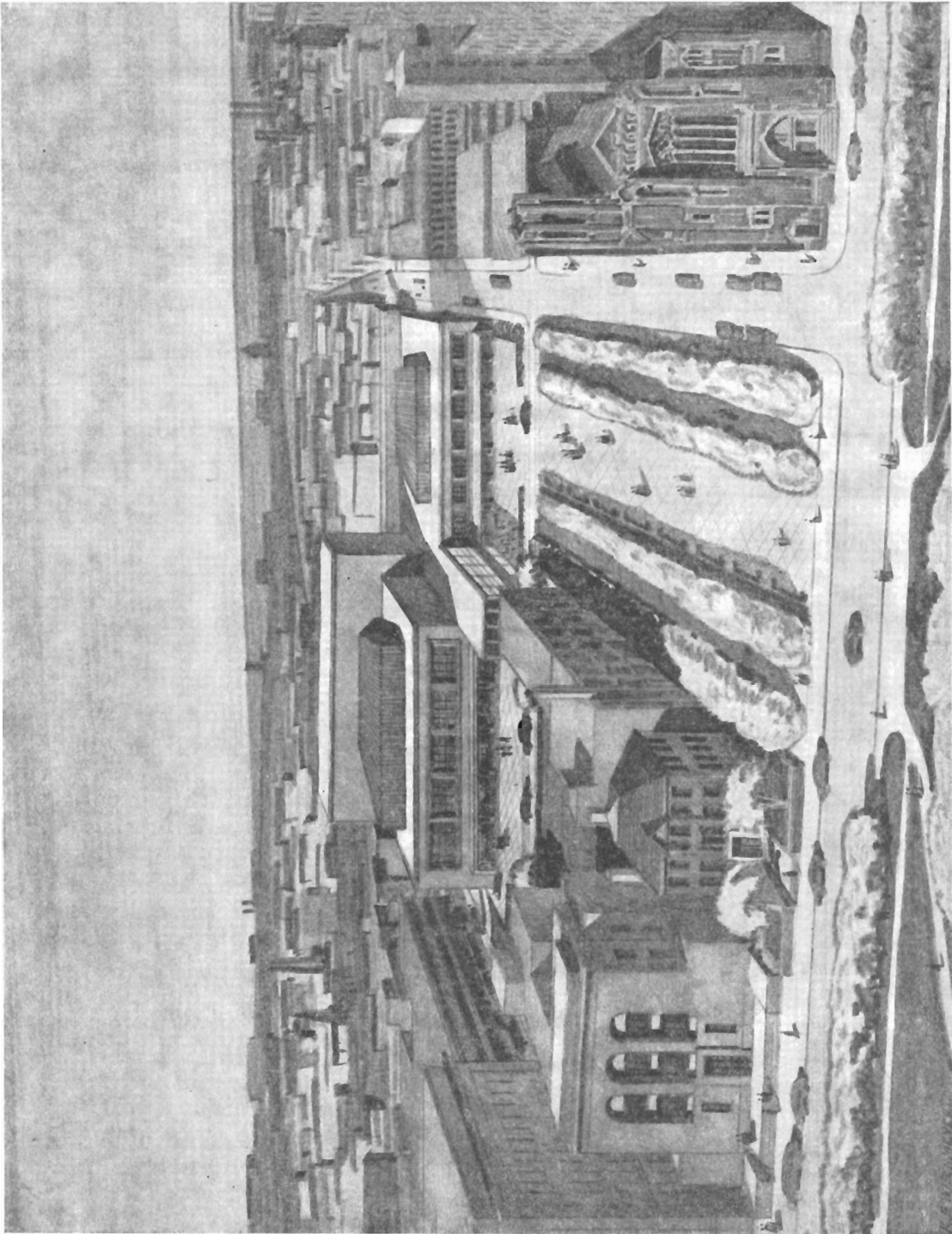


PROPOSED PLAN FOR A CULTURAL CENTER NEWARK NEW JERSEY

CENTRAL PLANNING BOARD OF
NEWARK, NEW JERSEY



HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS



Perspective View of Proposed Cultural Center

Plate No. 34

rium should be so located that it can be readily reached by persons visiting the building by private automobile.

Persons approaching the Auditorium from the South and Southwest can do so readily by way of High Street, Plane Street, Washington Street or Broad Street.

3. Accessibility by Public Transportation.

The proposed location is advantageous both from the standpoint of present and future routing of bus and trolley coach transit lines. High Street, Washington Street, Orange Street, and Central Avenue all have transit service at present and will have improved service in the future. All parts of the City are conveniently served by the transit lines operating on these streets.

Proposed Plan

As stated previously, it is most unfortunate that the Museum and Library were not constructed on adjoining properties. The separation of these two buildings by permanent and substantial structures makes it extremely difficult to develop a symmetrical plan for a Cultural Center in the area.

This plan proposes that the Auditorium Building occupy the entire block bounded by Burnet Street, James Street, Plane Street, and Central Avenue. Parking facilities accommodating 1,000 vehicles would be provided by a garage under the Auditorium Building and on an open lot in the half block bounded

by Plane Street, Orange Street, Essex Street, and James Street, having a capacity of 192 cars.

It would be desirable to connect the Auditorium Building with Washington Park by acquiring the property lying between James Street and the Museum Annex and from Washington to Plane Street. However, Rutgers University, Newark Branch, has begun acquisition of property in this area for the construction of one or more buildings, thus precluding its use as a connecting mall. Plans for these buildings should be coordinated with the cultural center plans to insure a harmonious development.

The facilities provided in the Public Auditorium Building would include a Concert Hall seating 4,000 persons, a small Theatre with a 1,200 seating capacity, Rehearsal Rooms, a Restaurant, and various offices. A Reception Room for visiting notables, called "The Green Room" on the plan is also provided. The two Auditoriums would add to the flexibility of the use of the building and would increase the revenues to be derived from renting the facilities.

An important feature is the parking area lying between Essex and Plane Streets, north of James Street. When not being used for Auditorium functions - which will be principally in the evening - this area can be utilized by the visitors and patrons of the Museum and Library, both institutions now being very deficient in parking space. Plates No. 33 and 34 show the proposed project as planned.

A LONG RANGE CAPITAL EXPENDITURE PROGRAM

Preceding chapters have outlined all of the proposals contained in the various sections of parts of Newark's Master Plan. Having completed the plan it is now necessary to present a program for carrying out its various recommendations. Proposed improvements involve new schools, improved playgrounds, major street improvements, public buildings, off-street parking facilities, re-development of slum areas, Freeway construction, and numerous other public improvements. In addition to the Master Plan proposals, there are many other obligations which must be met by the City in modernizing and extending its public services. Among these are the repaving of worn out streets, sewer construction, a new City Hospital, a new incinerator, improvements to various public buildings, and similar items.

The Master Plan is a medium for co-ordinating the program under which these various improvements would be authorized and constructed. It will make it possible to proceed with the program in an orderly and economical manner and will place first things first and avoid duplication of effort.

The Master Plan is a guide to be followed in the future development of the City, and the program which effectuates the plan must be prepared and carried out within the City's financial ability to pay, keeping in mind the importance of decreasing the City's tax rate.

A capital expenditure program consists of a list of improvements in the order of their importance to the community as a whole. Unless such a program is prepared and followed, there is grave danger that, because of special interest groups and political pressure, the timing schedule will be seriously disarranged, and the amount of bonds issued may be out of balance with the City's finances.

The Central Planning Board is the logical agency to prepare and see that the program is followed in the coming years. While there is no authority under the New Jersey Law

for such a procedure, the capital expenditure program, as presented herein can be used as a guide in determining the feasibility or practicability of the proposed new public improvements.

In order to determine whether or not the needed public improvements can be financed, it is necessary to make an exhaustive study of the City's financial requirements of the past, the present, and the future.

The program suggested herein is not extravagant although, on its face, it may appear large. It represents the essential needs of the community that must be met if the past trend of deterioration is to be reversed and the future Newark is to become a better place in which to live. The program is practical and realistic, and it does not contain any improvements which are not necessary for the future well-being of the City. It is so arranged that its component parts may be carried out in an orderly manner over a period of years and still result in a reduction of tax rates. By executing the program, property values will be stabilized, and new sources of tax ratables will be created. To undertake a lesser program would not succeed in creating a sound and stable community.

It is impossible to predict the economic changes such as a major depression or another war which may occur in the future. These unknown factors may conceivably result in an entirely different picture of the City's financial future should they occur during the 25-year period in which the plan is to be executed. For that reason, a definite program of individual projects should not be prepared too long in advance and a 5-year period is generally about as far as conditions can be reasonably foreseen. While the over-all 25-year program is outlined, it should be carried out by 5-year periods and adjusted to meet conditions which might be different than those visualized at this time.

Newark is confronted with a financial

crisis. Beset by rapidly rising costs of government and a static tax base, the City must find some way to extricate itself from its difficulties if it is to maintain its rightful place in the post-war era. Unless it is able to finance a program of essential public improvements in the next few years and at the same time make substantial tax reductions, the forces of deterioration will continue to operate and the vicious spiral of rising costs and declining revenues will be accelerated.

There are only two ways in which the City can extricate itself from its present position; either governmental costs must be greatly reduced or new sources of revenue must be found. In the present inflationary period, it will be extremely difficult to cut expenses, and the City is dependent upon action by the State for new sources of revenue. The situation poses a serious dilemma, and there is small consolation in the knowledge that almost every American community is in a similar situation.

A careful analysis of the needs of Newark reveals that almost \$100,000,000 of essential public improvements must be financed by bonds issues within the next 25 years and that \$20,000,000, of this total should be made available in the years 1947 to 1951. These estimates are exclusive of any further City-financed capital improvements at Newark Airport or Port Newark. If governmental costs continue at their present level and there is no substantial increase in revenues, the program cannot be carried out without maintaining or even increasing the indicated high tax rate of 1947. On the other hand, if some of the tax burden is removed from real estate, execution of the program will stimulate other improvements which, in turn, will increase the tax ratables and make it possible to lower the rate. To accomplish this objective, it is recommended:

(1) That concerted efforts be directed toward obtaining financial assistance from the State during the current session of the Legislature.

(2) That an early agreement be reached with the Port of New York Authority for the leasing of Port Newark and the Airport.

(3) That costs of operating the City Government and the school system be reduced as much as possible consistent with the maintenance of efficient administration.

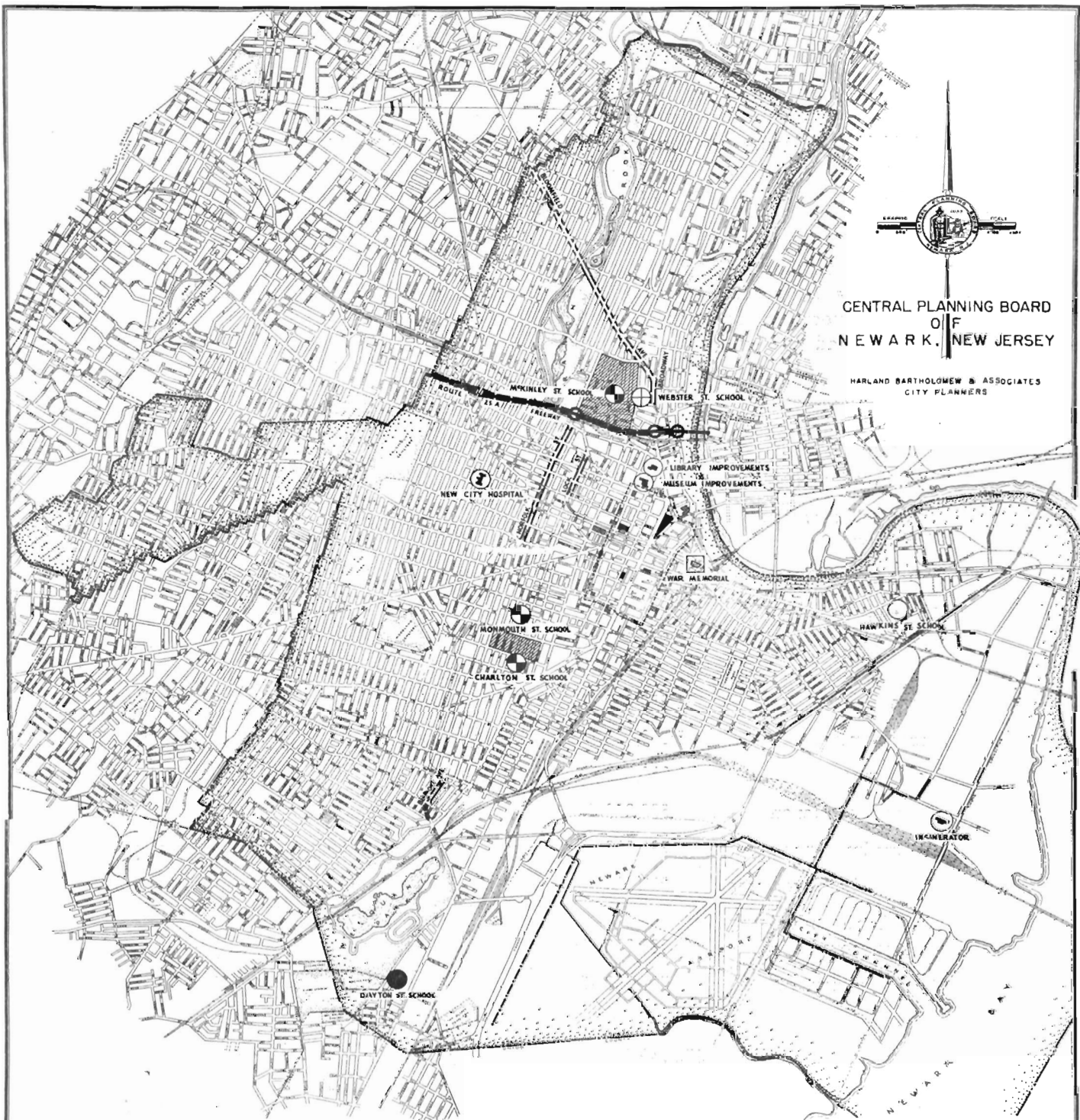
(4) That the proposed program be adjusted, if necessary, to keep the net bonded debt under 10 per cent of the assessed real state valuation.

Alternatives

(a) If general operating costs were to remain at their 1947 per capita level, there would be no increase in tax ratables, and present sources of revenue outside the tax levy would remain constant; to carry out the required program would result in increasing the estimated tax rate of \$6.07 in 1947 to \$6.47 in 1970. Needless to say, this alternative should not be given serious consideration.

(b) If the tax base remains constant, operating costs remain at their 1947 per capita level and the program is carried out; to reduce the tax rate to \$5.00 in 1970, it would require additional revenues of \$555,000 in 1948, increasing annually to \$9,600,000 in 1970. The latter figures can be reduced by the amount of savings effected in City and school operating costs.

(c) If operating costs remain at 1947 per capita levels, and there is an annual increment of \$5,000,000 in tax ratables, the program can be executed, and, at the same time, the tax rate can be lowered to \$5.59 in 1970. A further decrease could be accomplished by leasing the Airport and Seaport to the Port of New York Authority.



CENTRAL PLANNING BOARD
OF
NEWARK, NEW JERSEY

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS

CITY OF NEWARK, NEW JERSEY PROPOSED 5 - YEAR PUBLIC IMPROVEMENT PROGRAM

MAJOR STREET IMPROVEMENTS
 ROUTE 25A FREEWAY
 NEW CONNECTION
 WIDENING
PARKING FACILITIES
 PARKING GARAGE
 PARKING LOTS

SCHOOL & PLAYGROUND IMPROVEMENTS
 NEW SCHOOL
 SCHOOL TO BE REBUILT
 SCHOOL TO BE ALTERED
 SCHOOL SITE TO BE ENLARGED

REDEVELOPMENT PROJECT
 PUBLIC BUILDING
 WAR MEMORIAL
 SEWER
 BOUNDARY CENTRAL BUSINESS DISTRICT

INFORMATION FOR BASE MAP FURNISHED BY THE BUREAU OF
SURVEYS, DEPARTMENT OF PUBLIC WORKS, CITY OF NEWARK

COPYRIGHT 1944 BY THE
CENTRAL PLANNING BOARD OF NEWARK, NEW JERSEY

Summary of Program

The \$100,000,000 figure cited above includes only the City's share of the cost of carrying out the long range 25-year program. The complete 5-year program is estimated to cost \$72,149,000, and it would consist of the following items, part of the cost of which would be borne by private enterprise, revenue bonds, special assessments, and the State, County, and Federal Government.

1. School and Playground improvements	\$ 5,939,000 (1)
2. New City Hospital	6,000,000 (1)
3. Construction of Route 25 Freeway	6,000,000 (2)
4. Major Street Improvements	6,114,900 (2)
5. Off-street Parking Facilities	7,812,000 (2)
6. Re-development of Slum Areas	31,350,000 (2)
7. Street re-paving	5,102,000 (2)
8. Incinerator	1,250,000 (1)
9. Sewer construction	500,000 (1)
10. Library Improvements	781,600 (1)
11. Museum Improvements	250,000 (1)
12. Miscellaneous Building Improvements	300,000 (1)
13. War Memorial	750,000 (2)

Total \$72,149,500

- (1) Item financed entirely by bond issue
 (2) Item financed partially by bond issues

The complete 25-year program total \$244,176,500 and consists of the following improvements:

Master Plan Items:

1. Major Street Improvements...	\$35,043,300
2. Freeways	21,000,000
3. School and Playground Improvements	38,315,000
4. Park	2,000,000
5. Public Auditorium	6,461,000
6. Sports Arena	8,813,500
7. War Memorial	750,000
8. Military Park Garage	2,035,000
9. Parking Garages	5,777,600
10. Parking Lots	6,000,000
11. Re-development Projects	68,500,000
12. Grade Separations	250,000
13. City Hall Annex	1,000,000
Total	\$195,945,400

Other Capital Improvements:

1. City Hospital	\$ 6,000,000
2. Improvements to Water System	7,043,500
3. Street Re-paving	25,602,000
4. Sewer Construction	2,504,000
5. Incinerator	1,250,000
6. Newark College of Engineering	2,550,000
7. Library	1,281,600
8. Museum	500,000
9. Miscellaneous Buildings	1,500,000
Total	\$ 48,231,100
Grand Total	\$244,176,500

Method of Financing:

	Per Cent
1. General obligation bond issues.....	40.1
2. Special Assessments	7.2
3. Revenue Bonds	14.6
4. County	4.5
5. State and Federal Government.....	8.0
6. Private Interests	25.6
	100.0

The Master Plan is a 25-year plan, and the program to be presented in this report covers that period. The large amount of funds needed to carry out these proposals makes it necessary to spread them over the 25-year period, and the cost estimates for the individual projects necessarily are approximate only as they are subject to future changing economic conditions.

Many of the proposed improvements are those which would be made under any circumstances and do not represent a bond issue superimposed upon ordinary governmental expenditures. While the actual cost of individual projects at the time they are constructed, may differ from the estimate, it is believed that the over-all cost is reasonably accurate and that it presents a fair picture of the community's requirements.

It was also realized that as new improvements are made, the cost of operation generally is increased. This has been kept in mind, and provisions have been made for increasing the current operating costs of the City.

In addition to the Master Plan proposals, a compilation was made of the needs of all other City Departments and Agencies as nearly as they could be obtained at this time. The inventory which was made at the time of the report on a post-war public improvement program was reviewed with the sponsoring agencies, revised, and brought up to date. The former report referred to above was concerned only with the immediate post-war period and in no sense was intended to be a comprehensive public work program.

Trends in Assessed Values

Trends in assessed values and tax rates for the period from 1926 to 1947 are shown on Table 17. It will be seen that Newark has experienced a net loss of \$46,000,000 in net valuations during the entire period. The

loss of approximately \$112,000,000 in real property having been partially offset by an increase of \$66,000,000 in personal property valuation. The true gravity of the situation and its effect on the City's tax rate is realized only when account is taken of fluctuations during the intervening years. Between 1926 and 1937, total net valuations actually increased approximately \$190,000,000, reaching an all-time peak of \$962,000,000 in the latter year. Of this total increase, the percentage represented by personal property was slightly higher than that of real property: 54 per cent as compared to 46 per cent. Valuations were somewhat inflated at this point, and the succeeding period from 1936 to 1940 witnessed a reduction in total valuations of slightly less than \$200,000,000. In 1941, a realistic revaluation of the City took place which resulted in a decrease of \$50,000,000 between 1940 and 1941 valuations, practically all of which deduction was on real property. Although further decreases took place between 1941 and now, valuations have shown a general tendency to increase since 1943, and the 1947 valuation is slightly higher than that of 1941.

Since 1937, when the highest valuation was attained, the City has therefore experienced a loss in ratables of approximately \$236,000,000, most of which has been in real property, and a relatively small amount in personal property; of the total decrease, 82 per cent was for real property, and only 18 per cent for personal property. In 1938, the property valuation was only slightly higher than the 1947 figure.

The main reason for the City's loss in taxable wealth during the last decade is due to the deflation of overvalued property, but, since the revaluation of 1941, there was no gain in taxable property until 1947. This condition is attributable to many factors, the most significant of which are the cessation of building activity due to the war emergency, and decrease in valuations due to obsolescence of existing structures. The great loss in real property valuation is the most

TABLE 17

**Total Net and Per Capita Assessed Valuations
1926 - 1947 Incl.
Newark, N. J.**

Year	Real Property			Personal Property	Gross Assessed Valuation	Deductible Exemptions & Indebtedness*	Net Assessed Valuation	Percent Real Property Asses. of Total	Popula- tion	Per capita Net Assessed Valuation
	2nd Class Railroads	All Other Land	Buildings							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1926	\$5,072,103	\$265,482,720	\$356,466,900	\$150,554,850	\$777,576,573	5,659,700	\$771,916,873	80.5	431,212	\$1,790
1927	5,850,744	267,554,445	382,524,350	171,878,650	827,808,189	5,967,050	821,841,139	79.1	433,993	1,894
1928	6,074,978	270,734,395	405,125,050	189,860,700	871,795,123	24,964,000	846,831,123	77.7	436,774	1,939
1929	6,159,673	273,123,820	426,374,250	213,109,650	918,767,393	26,376,700	892,390,693	76.1	439,556	2,030
1930	6,706,198	280,931,835	436,116,000	191,468,050	915,222,083	28,433,100	886,788,983	78.4	442,337*	2,005
1931	7,609,175	281,685,935	445,565,750	180,778,150	915,639,010	28,550,500	887,088,510	79.6	441,079	2,011
1932	8,295,021	279,384,585	447,528,150	191,203,850	926,411,606	28,874,500	897,537,106	78.6	439,822	2,041
1933	8,149,278	278,807,510	443,136,300	175,294,850	905,387,938	28,782,900	876,605,038	80.0	438,564	1,999
1934	8,604,386	266,354,335	436,363,800	133,330,364	844,652,885	6,486,012	838,166,873	84.1	437,306	1,917
1935	8,210,273	280,990,780	446,189,900	214,017,900	949,408,853	6,169,800	943,239,053	77.3	436,049	2,163
1936	9,092,187	276,922,085	438,105,250	199,471,500	923,591,022	5,888,800	917,702,222	78.4	434,791	2,111
1937	8,797,254	275,911,620	428,858,700	254,252,300	967,819,874	5,891,600	961,938,274	73.5	433,533	2,219
1938	8,748,512	262,005,895	418,615,050	212,541,415	901,910,872	6,054,100	895,856,772	76.3	432,275	2,072
1939	9,286,258	250,667,280	404,020,000	170,398,250	834,351,788	5,816,200	828,535,588	79.5	431,018	1,922
1940	8,763,368	215,820,295	389,034,350	169,752,850	783,370,863	5,535,400	777,835,463	78.1	429,760*	1,810
1941	8,482,384	212,500,845	340,072,750	168,973,650	730,029,629	5,309,400	724,720,229	76.8	430,000	1,685
1942	8,842,813	195,466,270	329,567,700	175,695,500	709,572,283	4,821,500	704,750,783	75.0	430,000	1,639
1943	8,504,032	183,948,388	327,423,100	185,139,550	705,015,070	4,223,300	700,791,770	73.6	430,000	1,629
1944	8,827,493	180,952,757	324,087,100	197,993,700	711,861,050	5,743,500	706,117,550	72.1	430,000	1,642
1945	9,035,941	173,765,059	323,364,700	213,712,900	719,878,600	5,619,400	714,259,200	70.2	430,000	1,661
1946	9,391,819	168,385,481	322,804,500	212,671,800	713,253,600	5,565,700	707,687,900	70.0	432,800	1,635
1947	10,831,810	182,740,900	333,109,000	216,260,600	742,942,310	6,582,100	736,360,210	70.9	443,000	1,662

* Exemptions for household effects and Veterans

U. S. Bureau of Census figures - all other years are estimates.

serious aspect of the decline, since it directly affects the bonding capacity of the City, thereby limiting its ability to borrow in the future.

The assessed valuation per capita has decreased from \$1,790 in 1926 to \$1,665 in 1947. This decrease is accentuated by the fact that the population has increased only slightly during the period. Per capita assessed valuation for personal property has shown an increase from \$349 to \$484 during the period, whereas per capita valuations for real property have decreased from \$1,441 to \$1,181.

Trends in Tax Rates

The total tax rate per \$100 of property in Newark has varied between \$3.28 and \$5.75 since 1926. From 1926 until the depression, increases in City expenditures were offset by increases in valuation, and the increase in the tax rate was relatively small. During the depression, significant cuts in expenditures and a stable valuation permitted a decrease in the tax rate. In 1933 the tax rate reached a low of \$3.28 which was due to the fact that only one-half of the school budget was included that year due to a change in the school fiscal year. Adoption of the cash basis in the City's finances in 1938 with the statutory provision requiring the City to set up a reserve in the budget equal to the amount of uncollected taxes during the previous year resulted in a jump of almost \$1.00 in the tax rate. Increasing City expenditures with an accompanying loss in valuation increased the tax rate from 1938 until it reached a peak of \$5.75 in 1941. Between 1941 and 1945, operating costs were materially reduced, permitting a reduction in the tax rate to \$5.16, although the City was experiencing at the same time, a loss of ratables. Tax collections, however, improved during this period so that it was not necessary to provide as large a reserve as formerly. 1946 operating expenditures were substantially larger than those of 1945, and these expenditures together with the loss of ap-

proximately \$7,000,000 in valuations necessitated an increase of 50 points in the tax rate. Anticipated expenditures for 1947 indicate a further increase in the tax rate to a peak of \$6.00 or more, in spite of an increase of approximately \$18,000,000 in the 1947 net assessed valuation over that of 1946.

Trends in City Expenditures

Table 18 is a break-down of the City's annual expenditures showing the allocations to various functional divisions of the City Government, Schools and Debt Service, State and County Taxes, and other purposes.

The 20-year period covered by the table includes the inflationary period culminating in 1930, the depression years, the post-depression period, the war years, and the two post-war years. Fluctuations in the City's expenditures follow the economic changes closely. For the 5-year period beginning in 1926 and extending to 1930, total City costs increased from approximately \$31,000,000 to \$42,000,000. During the worst period of the depression the cost declined to \$25,500,000 in 1933. Because of deferred expenses, a sharp increase occurred beginning in 1934 and continued to 1938, when the peak was reached in annual expenditures. Since 1938, governmental costs have been decreased annually until 1944, but since that time they are again rising. The \$48,000,000 expenditure in 1946 is about the same as that of 1936.

Sources of Municipal Revenue

The City derives its revenue from various sources, the principal one of which is the tax levy on real and personal property. Other revenue comes from licenses, fees, taxes on public utilities, payments and interest on tax levies, collections of delinquent taxes, sale of tax title liens, and levies on bank stock and railroad property. Table 19 shows the amount and kind of revenue received by the City annually since 1926.

The total revenues received by the City amounted to approximately \$30,000,000 in 1926. This has risen with certain variations to \$37,000,000 in 1941 and in 1946 amounted to \$44,000,000.

Future Bonding Capacity of Newark

At the present time, the outstanding net debt for Newark exceeds the statutory debt limit of 7 percent of the assessed valuation of real property. In 1946, this excess amounted to \$7,359,287; it will be reduced to \$1,259,250 in 1948, and thereafter will be within the limitation. In order not to make it impossible for cities which have exceeded their debt limit to issue more bonds, Section 40:1-16.1 of the Revised Statutes sets up a formula based on the percentage that the net debt bears to the average assessed valuation of real estate and the amount of debt outstanding that has been retired during the year. This will permit issuance of additional bonds. The State Law also permits a debt to be created for school purposes not to exceed 6 percent of the assessed valuation of real property. However, the State Law further limits the combined municipal and school debt to 11 percent of the real property valuation.

In order to show the effect of the bond issues proposed under the long-range improvement program, Table 20 has been prepared. It has been assumed that the assessed valuation of real estate will remain constant at 515 million dollars between the years 1948 and 1970. This is a conservative estimate as it is anticipated that there will be an annual increment to assessed values brought about by carrying out the improvements proposed in the Master Plan. The outstanding net debt for both City and School purposes in 1946 was \$51,506,112 which was about 5 million dollars less than the debt limit of 11 percent or \$56,650,000. The present bonded debt will be retired by 1972, and will be reduced from its present level to \$1,224,000 in 1970. During

that period, it is assumed that the debt limit will remain constant, and consequently, there will be an ever-increasing margin for new bond debts. This margin will be \$8,434,732 in 1947 and will increase to \$55,426,000 in 1970. The proposed program contemplates the issuance of 4 million dollars annually of 30-year serial bonds bearing 3 percent interest. Added to the present net debt, there will be an increase from \$51,995,268 in 1947 to \$52,949,154 in 1953, after which the outstanding net debt will decrease annually until it reaches a total of \$43,450,000 in 1970. This is approximately the same as the net debt in 1948.

The proposed financing of the long-range program will not use up all of the bonding capacity of the City. If necessary, additional bonds could be issued ranging in amounts from \$4,434,732 in 1947; to \$6,396,326 in 1960; \$9,958,550 in 1965 and \$13,200,000 in 1970.

Thus, it is seen that the proposed program will not require a change in the statutory debt limit in order to finance it if the value of real property does not substantially decline in the future. Even if that occurs, and it seems unlikely that it will, the special formula described previously would be available for use and would make it possible to still issue the required amount of bonds.

Effect of Proposed Improvement Program on Future Tax Rate

The necessity for decreasing the present tax rate in Newark has been emphasized on many occasions. Table 21 has been prepared to show how the improvement program can be carried out, and, at the same time, reduce the tax rate. In preparing this analysis, it was necessary to make certain assumptions. These were:

- (1) That there would be an average annual increase in tax ratables of 5 million dollars in the period from 1947 to 1970. While this assumption may appear optimistic, it

TABLE 18

Allocation of Expenditures to Governmental Functions

1926 - 1946, Incl.

Newark, N. J.

YEAR	GENERAL GOV'T(1)	HEALTH	WELFARE(2)	SANITATION	RECREATION(3)	P U B L I C S A F E T Y			STREETS	LIBRARIES	SCHOOLS(5)	DEBT SERVICE	MISCELLANEOUS(6)	DEFICITS AND STATUTORY EXPENDITURES	RESERVE FOR UNCOLLECTED TAXES	STATE AND COUNTY TAXES	TOTALS.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1926	\$1,214,715 3.9	\$1,286,578 4.1	\$418,107 1.3	\$2,508,573 8.0	\$228,738 0.7	\$2,806,534 8.9	\$2,174,884 6.9	\$233,034 0.7	\$852,568 2.7	\$340,000 1.1	\$6,500,000 20.6	\$3,681,419 11.6	\$580,071 1.8	\$941,356 3.0	\$300,000 1.0	\$7,384,022 23.7	\$31,448,599
1927	1,298,390 3.9	1,399,536 4.1	473,558 1.4	2,585,991 8.0	268,440 0.8	3,225,228 9.4	2,409,352 7.0	252,136 0.7	868,046 2.5	395,000 1.1	6,890,000 20.1	4,108,326 12.0	576,438 1.7	1,157,963 3.4	328,000 1.0	7,979,993 23.3	34,216,397
1928	1,377,265 3.9	1,522,100 4.3	493,025 1.4	2,233,560 6.3	323,476 0.9	3,297,632 9.3	2,425,780 6.8	264,796 0.7	891,234 2.5	427,000 1.2	7,410,000 20.8	4,637,643 13.0	803,740 2.2	1,100,051 3.1	330,000 0.9	8,082,732 22.7	35,630,036
1929	1,637,652 4.4	1,545,676 4.2	528,405 1.4	2,478,567 6.4	339,886 0.9	3,500,851 9.5	2,448,620 6.6	292,476 0.7	878,546 2.4	523,700 1.4	6,845,000 18.5	4,768,465 12.9	710,795 1.9	1,194,387 3.2	355,000 0.9	8,866,086 24.0	36,914,112
1930	1,572,977 3.7	1,697,275 4.0	601,877 1.9	2,435,036 5.8	385,936 0.9	3,531,805 8.4	2,448,327 5.8	301,155 0.7	871,341 2.1	570,000 1.4	8,280,000 19.6	5,177,044 12.3	707,317 1.7	882,698 2.1	405,000 1.0	9,090,417 21.5	42,148,205
1931	1,606,660 4.1	1,727,040 4.3	1,841,562 4.6	2,383,136 5.9	413,036 1.0	3,652,428 9.1	2,461,807 6.1	293,489 0.7	823,543 2.1	585,200 1.5	8,520,000 20.8	5,606,247 13.8	511,750 1.3	353,316 0.8	505,000 1.3	8,788,865 21.9	40,079,119
1932	1,476,157 3.9	1,501,790 3.9	538,228 1.2	1,989,049 5.2	348,181 0.9	3,527,857 9.3	2,324,635 6.1	269,968 0.7	867,785 1.8	556,689 1.5	8,065,000 21.2	6,470,970 17.0	470,769 1.2	657,291 1.7	300,000 0.9	8,934,611 23.5	38,098,990
1933	1,327,203 5.2	1,450,608 5.7	509,119 1.9	1,590,201 6.2	254,265 1.0	3,119,076 12.2	1,997,328 7.8	205,213 0.8	564,562 2.2	400,000 1.6	2,487,500 9.7	7,318,567 28.6	794,508 3.1	2,035,514 7.9	1,300,000 5.1	300,000 1.2	25,653,669
1934	1,246,689 2.3	1,461,238 3.3	492,666 1.1	1,570,492 3.5	243,194 0.5	3,220,980 7.2	2,050,950 4.6	195,164 0.4	563,312 1.3	400,000 0.8	5,780,000 13.0	7,839,852 17.5	737,767 1.6	1,089,054 2.4	2,747,329 6.1	15,301,050 34.2	44,744,943
1935	1,374,777 3.0	1,443,603 3.2	1,053,364 2.3	1,687,393 3.7	277,854 0.6	3,184,187 6.9	1,965,138 4.3	201,723 0.4	639,473 1.4	475,000 1.0	6,150,000 13.2	8,217,310 18.0	811,890 1.8	1,093,240 2.4	9,608,885 21.1	7,403,990 16.2	45,587,827
1936	1,482,815 3.1	1,577,069 3.3	165,168 0.3	2,030,150 4.2	305,219 0.6	3,332,001 6.9	2,140,232 4.5	215,392 0.4	698,780 1.5	502,500 1.0	6,625,000 13.8	8,651,877 18.0	772,956 1.6	1,216,579 2.5	10,909,499 22.7	7,446,322 15.5	48,071,559
1937	1,664,211 3.4	1,724,054 3.5	1,037,735 2.1	2,064,929 4.2	331,018 0.7	3,485,934 7.0	2,176,874 4.6	255,696 0.5	722,708 1.5	563,500 1.1	7,515,000 15.2	8,807,761 17.8	918,092 1.8	1,063,140 2.1	9,332,200 18.9	7,982,115 16.3	49,644,967
1938	1,515,474 2.6	1,673,690 2.9	1,666,119 2.8	2,078,015 3.6	346,089 0.6	3,473,641 5.9	2,119,542 3.6	231,188 0.4	735,079 1.3	563,500 1.0	7,999,250 13.7	9,336,590 15.9	1,081,053 1.3	7,358,368 12.6	10,850,660 18.5	7,525,545 12.9	58,528,532
1939	\$1,566,359 2.9	\$1,732,747 3.2	\$4,780,987 8.8	\$2,051,557 3.8	\$326,290 0.6	\$3,453,759 6.4	\$2,092,596 3.9	\$236,161 0.4	\$635,330 1.2	\$500,000 0.9	\$7,929,250 14.6	9,429,652 17.4	\$884,336 1.6	\$2,869,242 5.3	\$8,376,209 15.5	\$7,247,877 13.4	\$64,112,352
1940	1,565,142 2.9	1,786,781 3.3	2,775,361 5.1	2,201,932 4.0	299,750 0.5	3,369,939 6.2	2,035,786 3.7	234,975 0.4	697,773 1.3	553,500 1.1	8,404,250 15.4	9,348,542 17.1	997,980 1.8	7,252,460 13.3	6,168,210 11.4	7,045,020 12.9	54,737,401
1941	1,745,507 3.3	1,956,709 3.7	2,486,826 4.7	2,443,263 4.7	305,356 0.6	3,422,550 6.5	2,146,596 4.1	275,619 0.5	694,180 1.3	579,728 1.2	8,763,000 16.7	9,150,086 17.4	1,314,059 2.5	3,725,413 7.1	6,651,958 12.7	6,776,280 12.9	52,457,130
1942	1,930,713 4.1	1,956,932 4.2	1,800,796 3.9	2,446,556 5.3	368,445 0.8	3,366,576 7.2	2,071,635 4.5	319,955 0.7	674,449 1.4	580,789 1.2	8,484,250 18.2	8,306,221 18.0	1,399,623 3.0	857,090 1.8	5,148,311 11.1	6,785,808 14.6	46,573,049
1943	2,126,883 4.7	2,017,987 4.4	771,601 1.7	2,395,094 5.3	437,349 1.0	3,777,128 8.3	2,276,209 5.0	398,439 0.9	681,779 1.5	623,860 1.4	8,524,250 18.7	8,192,496 18.3	1,754,943 3.8	417,634 0.9	4,250,531 9.3	6,946,382 15.2	45,592,673
1944	2,244,767 5.0	2,060,038 4.6	567,758 1.3	2,423,460 5.4	451,791 1.0	3,589,021 8.0	2,165,687 4.8	306,125 0.7	699,221 1.6	635,000 1.4	9,124,570 20.4	7,909,540 17.7	1,576,070 3.5	205,626 0.5	3,749,586 8.4	6,992,831 15.6	44,691,091
1945	2,520,284 5.5	2,208,048 4.8	492,009 1.1	2,708,530 5.9	481,478 1.0	3,633,493 7.9	2,145,786 4.5	309,708 0.7	770,817 1.7	635,000 1.4	9,352,590 20.2	7,403,556 16.1	1,549,444 3.4	216,323 0.5	3,692,332 8.0	7,030,353 15.2	46,149,751
1946(7)	\$2,633,126 5.5	\$2,389,785 4.9	\$544,733 1.1	\$2,892,116 5.9	\$601,506 1.3	\$4,207,506 8.7	\$2,665,073 5.5	\$349,402 0.7	\$909,709 1.9	\$732,855 1.5	\$9,569,850 19.8	\$6,574,867 13.6	\$1,730,190 3.8	\$1,324,746 2.7	\$3,781,558 8.3	\$7,160,000 16.9	\$48,267,022

(1) Includes expenditures for assessment and collection of taxes, administration of Departments, City Clerk, Law Department, District Courts, and other administrative functions.

(2) Includes expenditures for City Home, Alms House, Outdoor Poor, Emergency Relief, Direct Relief, etc.

(3) Includes expenditures for Bureau of Shade Trees, Newark Museum, Public Outings, Public Band Concerts, etc.

(4) Includes expenditures for License, Building & Electric Divisions, Police Courts, Defense Council, Board of Alcoholic Beverage Control, etc.

(5) Includes expenditures for Newark Technical School.

(6) Includes expenditures for Pension Funds, Sundries and Contingent, Division of Surveys, Bureau of Motors, Division of Claims, etc.

(7) Budget estimates.

TABLE 19
Sources of Municipal Revenue - (Current Fund)
1926 - 1946, Incl.
Newark, N. J.

MISCELLANEOUS REVENUE.				DELINQUENT TAXES	TAX TITLE LIENS	CURRENT FUND SURPLUS REVENUE APPROPRIATED	OTHER SURPLUSES APPROPRIATED(4)	GENERAL TAX LEVY -		2ND CLASS R.R.TAX	TOTAL REVENUES	% TOTAL REVENUE DERIVED CURRENT LEVY	% REVENUE FROM CURRENT LEVY DEL. TAXES & TAX LIENS (Columns 5,6,13)	
YEAR	LICENSES, PERMITS FEES & FINES	PUBLIC UTILITY TAXES (1)	PENALTIES & INTEREST OTHER (2)					REAL & PERSONAL PROPERTY	CURRENT BANK STOCK TAX					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1926	\$ 515,029	\$ 1,544,451	\$ 554,983	\$ 356,155	\$ 4,627,007	-	\$ 310,443	-	\$22,644,770	(5)	(5)	\$ 29,532,838	76.6%	92.4%
1927	549,909	1,645,991	606,468	302,305	4,598,433	-	599,252	-	24,657,956	(5)	(5)	32,960,314	74.9%	89.0%
1928	520,887	1,659,128	764,228	153,077	5,610,303	-	600,000	-	25,499,618	(5)	(5)	34,807,241	73.2%	89.4%
1929	536,250	1,660,208	829,189	146,013	6,106,531	-	821,675	-	25,783,041	(5)	(5)	35,882,907	71.8%	85.6%
1930	507,289	1,670,158	881,684	120,035	7,069,123	-	1,020,160	-	25,888,940	\$ 96,519	(5)	37,253,908	69.7%	88.6%
1931	443,308	1,588,718	818,971	225,581	7,716,791	-	871,972	-	25,005,926	92,113	(5)	36,763,380	-	-
1932	370,942	1,666,777	802,924	991,021	7,158,911	-	258,599	-	22,016,794	163,571	\$ 238,399	33,667,938	-	-
1933	887,372	1,490,209	809,402	847,867	7,858,186	-	202,872	1,525,858	18,046,619	64,629	133,021	31,866,035	-	-
1934	1,079,080	1,454,613	1,296,535	317,939	10,739,368	-	1,470,000	385,810	20,660,353	113,100	189,226	37,706,024	-	-
1935	1,054,638	1,476,859	1,282,235	146,148	8,087,045	2,041,138	-	-	21,644,171	69,708	168,116	35,970,058	61.0%	89.0%
1936	1,041,673	1,315,478	1,142,834	119,240	6,703,775	1,087,602	139,150	-	27,245,620	60,837	251,542	39,107,751	-	-
1937	1,025,225	3,223,349	843,168	443,882	5,654,692	895,541	2,366,220(3)	17,152	25,971,979	31,554	247,765	40,720,527	-	-
1938	1,015,318	1,288,631	856,445	715,129	5,924,092	599,563	2,207,200	2,166,142	31,842,045	66,546	304,434	46,985,545	-	-
1939	1,001,573	277,539	649,515	345,002	5,220,141	481,574	1,087,172(3)	136,565	31,079,187	66,183	275,008	40,619,459	-	-
1940	982,700	880,543	503,330	2,609,673	4,004,355	367,547	3,589,818	1,841,793	31,361,210	72,265	339,173	46,552,407	68.1%	77.6%
1941	1,012,438	4,256,842	562,868	399,268	3,605,589	620,786	898	833,815	35,437,492	79,084	254,197	47,063,277	-	-
1942	1,044,189	2,100,917	411,734	312,841	3,217,545	515,874	429,407(3)	727,712	32,659,699	89,387	398,371	41,907,676	-	-
1943	994,729	2,131,485	336,625	467,265	2,377,320	321,256	529,000(3)	335,000	33,617,578	96,371	518,083	41,724,712	-	-
1944	1,002,374	2,207,659	292,082	414,118	1,706,722	1,476,960	199,411(3)	839,975	34,193,688	108,481	459,386	41,900,856	-	-
1945	1,012,091	2,230,762	372,038	380,436	1,425,437	799,464	1,500,000	606,000	34,263,039	136,487	452,152	43,177,906	80.7%	86.0%
(6) 1946	998,600	2,215,000	300,500	359,900	1,000,000	400,000	2,000,000	727,442	35,834,022	-	450,000	44,285,464	-	-

Source of information; independent audits of current account: Price Waterhouse & Company, Puder & Puder - 1926-1945

1-Includes revenue derived from Bus Receipts Tax, 5% Trolley Tax, Gross Receipts Tax and Franchise Tax. The last two taxes are levied by the State.

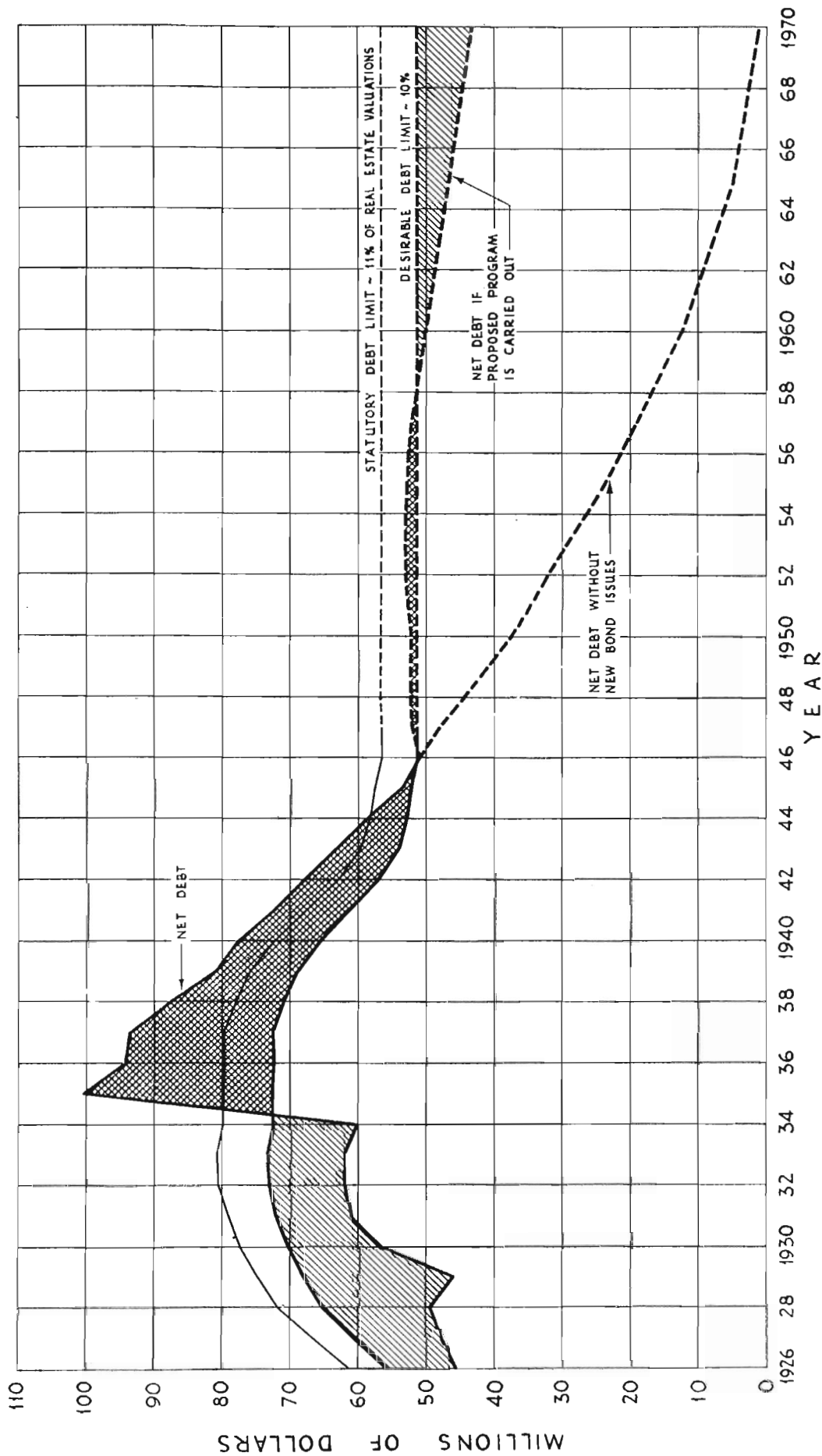
2-Includes revenue derived from Leases and Rents, certain departmental receipts, State and Federal Aid, miscellaneous revenue not anticipated and income from Parking Meters.

3-Includes cash and non-cash surplus revenue appropriated. All other years show cash surplus revenue only.

4-Includes surpluses appropriated from Bureau of Water, Bureau of Docks, Farmers' Market, Airport, Capital Fund, Trust Account, Poor Relief, Shade Tree Bureau, Capital Reserve to pay Poor Relief Bonds, and income derived from the sale of City Property. By statutory provision, all revenues included herein must receive the written consent of the Director of Local Government before inclusion in the annual budget as anticipated revenue.

5-Included in total for Real and Personal Property. Column 9.

6-Amounts estimated in 1946 budget; information on actual cash receipts were not available.



PAST NET DEBT AND FUTURE ESTIMATED NET DEBT AND BONDING CAPACITY IF PROPOSED PUBLIC IMPROVEMENT PROGRAM IS CARRIED OUT

CENTRAL PLANNING BOARD OF
NEWARK, NEW JERSEY

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS

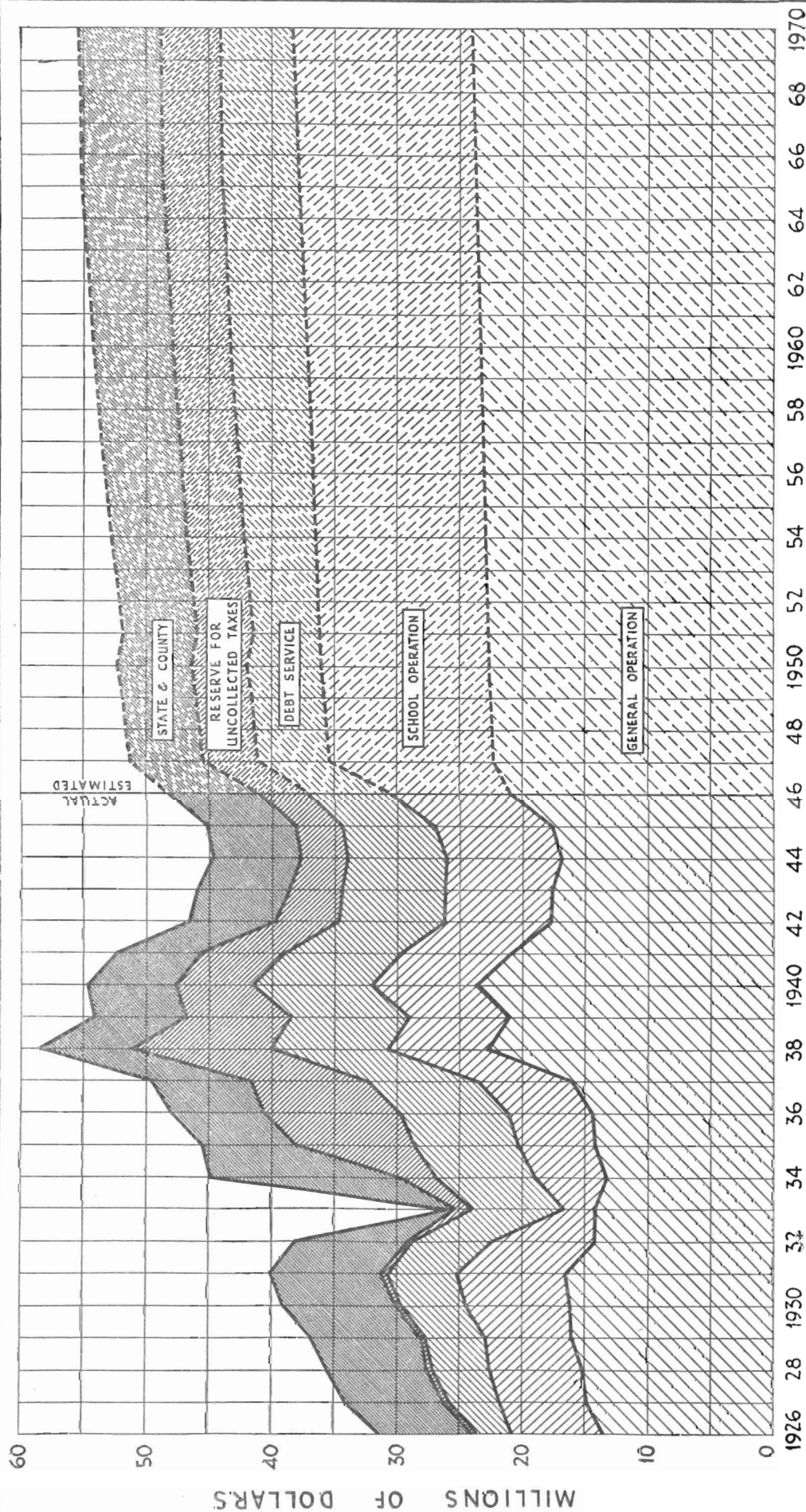
TABLE 20

***Analysis of Future Bonding Capacity Under Present Statutory Limitations
1948 - 1970 Incl.
Newark, N. J.***

Year	Assessed Val. Real Estate (Aver. 3 Year)	Existing Net Debt Outstand. City & School	Debt Limit (1) 11% Col. 1	Bonding Capacity (Col. 3-Col. 2)	Net Debt Outstanding (2) (Prop. Program)	Bonding Capacity (In Addition To Prop. Program)
1946	\$515,000	\$51,506,112	\$56,650,000	\$5,143,888	\$51,506,112	\$ 5,143,888
1947	513,000	47,995,268	56,430,000	8,434,732	51,995,268	4,434,732
1948	515,000	44,261,829	56,650,000	12,388,171	52,060,983	4,589,017
1949	515,000	40,718,886	56,650,000	15,931,114	52,118,040	4,531,960
1950	515,000	37,327,610	56,650,000	19,322,390	52,026,764	4,623,236
1951	515,000	34,560,334	56,650,000	22,089,665	52,459,488	4,190,512
1952	515,000	31,838,811	56,650,000	24,811,189	52,737,965	3,912,035
1953	515,000	29,251,000	56,650,000	27,399,000	52,949,154	3,700,846
1954	515,000	26,380,619	56,650,000	30,269,381	52,899,773	3,750,227
1955	515,000	23,808,760	56,650,000	32,841,240	52,729,914	3,920,086
1956	515,000	21,357,547	56,650,000	35,292,453	52,490,701	4,159,299
1957	515,000	18,975,684	56,650,000	37,674,316	52,110,838	4,539,162
1960	515,000	12,318,520	56,650,000	44,331,480	50,253,674	6,396,326
1965	515,000	4,756,296	56,650,000	51,893,704	46,691,450	9,958,550
1970	\$515,000	\$ 1,224,000	\$56,650,000	\$55,426,000	\$43,450,000	\$13,200,000

(1) Combined Municipal and School Debt Limit is eleven percent of the assessed valuation of real estate.

(2) Based on issuing \$4,000,000. of 30-Year 3% Serial Bonds annually beginning in 1947.



PAST COST OF GOVERNMENT AND FUTURE ESTIMATED COST IF PROPOSED PUBLIC IMPROVEMENT PROGRAM IS CARRIED OUT

CENTRAL PLANNING BOARD OF
NEWARK, NEW JERSEY

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS

should be borne in mind that the carrying out of the projected improvement program will encourage new developments which, in turn, will add to the tax base. On the other hand, if sufficient new sources of revenue become available to the City, it will have the same effect as if the tax ratables were increased annually.

(2) It is assumed that the 1947 tax rate will be \$6.07. At the time these calculations were made, the budget for the City had not yet been formally adopted and the official tax rate was not known. It was actually set at \$5.97.

(3) It was further assumed that the present high level of City, School, and County operating costs would be maintained in the future and that the per capita cost would be constant.

(4) It is assumed that the revenue derived from sources other than property taxation would increase in proportion to the increase in population.

Based on the above assumptions, the assessed valuation would increase from \$725,500,000 in 1947 to \$840,000,000 in 1970. During the same period, general operating costs of the City would increase from an estimated \$21,750,000 in 1947 to \$23,552,800 in 1970; school operating costs would increase from \$13,200,000 in 1947 to \$14,301,600 in 1970; and County taxes would increase from \$5,750,000 in 1947 to \$6,693,250 in 1970.

Inasmuch as the existing bonded debt will be virtually retired in 1970, debt service costs decrease rapidly during the period and whereas in 1947 it amounted to \$5,605,650, in 1970 it will be only \$462,038.

The cost of servicing the new issues will add materially to the City Budget. This cost beginning in 1948 will increase from

\$320,000 annually to a peak of \$5,054,000 in 1966, and, thereafter, will remain constant at \$5,260,000 until 1970.

The total cost of operating the City and Schools will increase from \$46,875,650 in 1947 to \$50,769,688 in 1970. Allowing for anticipated revenues from sources other than real and personal property taxation and assuming that the reserve for uncollected taxes will remain fairly constant at about \$4,500,000, the total levy from which the tax rate is determined will show an increase from \$44,045,275 in 1947 to \$46,943,060 in 1970. This results in a tax rate estimated at \$6.07 in 1947 which will be gradually decreased until it reaches \$5.59 in 1970.

If the City and the Port of New York Authority, on the basis of the January 7, 1947 proposal, enter into an agreement for the leasing of the Airport and Seaport to the Authority, the rental received will result in a future decrease in the tax rate. Beginning in 1956, this decrease amounts to 4 points and increases to 6 points in 1970.

It is realized that even though the tax rate is reduced to \$5.59 by 1970, it will still be too high to keep the City on a stable financial base. Other ways and means must be found to further reduce this rate. If the tax ratables have not increased over the 1947 level and a \$5.00 tax rate is to be achieved by 1970, it will be necessary to secure other revenues in an increasing amount if the necessary improvement program is to be carried out. It is estimated that the amount required for this purpose in 1948 will be \$555,000 and that this will increase until it reaches \$9,601,000 in 1970. The same result can be accomplished by a corresponding reduction in the City and Schools operating expense, and a combination of new revenues, plus strict economy should make it possible to reach the \$5.00 rate.

This is the most serious question now facing the City, and it must be solved if progress is to be maintained in the future.

TABLE 21
Effect on Tax Rate of Proposed Capital Improvement Program
 1947 - 1971, Incl.
 Newark, N. J.

YEAR	ASSESSED VALUATION (In Thousands)	ESTIMATED TAX RATE	GENERAL OPERATING COSTS	SCHOOL OPERATING COSTS	COUNTY	DEFICITS & STATUTORY EXPENDITURES	DEBT SERVICE Existing Debt	DEBT SERVICE New Debt	TOTAL	ANTICIPATED REVENUE	TOTAL LESS ANTICIPATED REVENUE	RESERVE FOR UNCOLLECTED TAXES	TOTAL PLUS RESERVE	TOTAL LEVY (Less Bank Stock Tax)	PORT AUTHORITY PAYMENTS	TAX RATE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1947	\$ 725,500	\$ 6.07	\$ 21,750,000	\$ 13,200,000	\$ 5,750,000	\$ 570,000	\$ 5,605,650	\$ -	\$ 46,375,650	\$ 7,093,000	\$ 39,782,650	\$ 4,420,295	\$ 44,202,945	\$ 44,045,275	\$ -	\$ -
1948	730,000	6.01	21,876,160	13,283,520	5,795,000	500,000	5,415,825	320,000(1)	47,130,505	7,113,470	40,072,035	4,452,445	44,524,480	43,885,275	-	-
1949	735,000	6.06	22,015,880	13,368,360	5,835,400	500,000	5,071,542	634,000	47,425,182	7,161,990	40,263,192	4,473,688	44,736,880	44,571,880	-	-
1950	740,000	6.07	22,155,600	13,453,200	5,876,300	500,000	4,869,148	942,000	47,796,248	7,222,100	40,574,148	4,508,232	45,082,380	44,912,380	-	-
1951	745,000	5.96	22,225,460	13,495,620	5,917,100	500,000	4,022,920	1,244,000	47,405,100	7,282,680	40,122,420	4,458,040	44,580,460	44,405,460	-	-
1952	750,000	5.94	22,295,320	13,538,040	5,958,000	500,000	3,850,963	1,540,000	47,682,323	7,444,490	40,237,833	4,470,877	44,708,710	44,528,710	-	-
1953	755,000	5.93	22,365,180	13,580,460	5,998,800	500,000	3,682,342	1,830,000	47,956,782	7,508,300	40,448,482	4,494,278	44,942,760	44,757,760	-	-
1954	760,000	5.92	22,435,040	13,622,880	6,039,700	500,000	3,565,184	2,114,000	48,276,804	7,645,860	40,630,944	4,514,586	45,145,530	44,955,530	-	-
1955	765,000	5.91	22,504,900	13,665,300	6,080,500	500,000	3,345,338	2,332,000	48,488,038	7,642,280	40,845,758	4,536,412	45,384,170	45,189,170	-	-
1956	770,000	5.89	22,574,760	13,707,720	6,121,350	500,000	3,154,351	2,664,000	48,722,181	7,744,640	40,977,541	4,553,059	45,530,600	45,330,600	279,700(2)	5.85
								2,930,000							406,200	-
								3,190,000							484,900	-
								3,444,000							553,400	-
1960	790,000	5.80	22,854,200	13,877,400	6,284,750	500,000	2,397,072	3,692,000	49,605,422	7,898,583	41,706,839	4,634,091	46,046,930	45,846,930	621,900	5.75
								3,934,000							-	-
								4,170,000							-	-
								4,400,000							-	-
								4,624,000							-	-
1965	815,000	5.75	23,203,500	14,089,500	6,489,000	500,000	1,292,479	4,842,000	50,416,479	8,077,443	42,339,036	4,704,334	47,043,370	46,843,370	621,900	5.69
								5,054,000							-	-
								5,260,000							-	-
								5,260,000							-	-
								5,260,000							-	-
1970	840,000	5.59	23,552,800	14,301,600	6,693,250	500,000	462,038	5,260,000	50,769,688	8,340,933	42,428,755	4,714,305	47,143,060	46,943,060	621,900	5.53

(1) Based on issuance of \$4,000,000 annually of 30-year, 3 percent serial bonds.
 (2) Based on proposal of January 7, 1947 by Port of New York Authority to City Commission.

ADMINISTRATIVE POLICY AND PRACTICE

Completion of the Master Plan for Newark marks the close of the first phase of the Planning Board's work.

While this is an essential first step, the adoption, execution, protection, and periodical revision of the Master Plan is of far more importance to the future well-being of the community. Unless the Planning Board functions as a continuing and permanent part of the City's Administration and unless it succeeds in securing full public understanding and support of its objectives, the Master Plan may suffer the same fate as that of the 1916 Plan. It would be most unfortunate should this happen again.

Making the Plan Official

The New Jersey Planning Enabling Act sets forth the procedure to be followed by the Planning Board in making the Master Plan official. Paragraph 4:55-6 of the Revised Statutes of New Jersey, reads as follows:

"Planning Board; general powers and duties; master plan. The planning board shall make and adopt a master plan for the physical development of the municipality, including any areas outside of its boundaries which, in the board's judgment, bear essential relation to the planning of the municipality. The plan, which the accompanying maps, charts, drawings and descriptive matter, shall show the board's recommendations for the development of said territory, including, among other things, the general location, character and extent of streets, subways, bridges, waterways, water fronts, parkways, playgrounds, square, parks, aviation fields, and other ways, grounds, and open spaces, the general location of public buildings and other public property, and the general location and extent of major public utility and terminal facilities, whether publicly or privately owned, and general plans for the removal, relocation, widening, narrowing, vacating, abandonment, change of use or extension of any of the foregoing ways, ground, open spaces, buildings, property, utilities or terminals. As the work of making the whole master plan progresses, the board may, from time to time, adopt and publish parts thereof, any such part to cover one or more major sections or divisions of the municipality or one or more of the aforesaid or other functional matters to be included in the

plan. The board may, from time to time, amend, extend or add to the plan. In the preparation of the master plan the planning board shall give due consideration to the probable ability of the municipality to carry out, over a period of years, the various projects embraced in the plan without the imposition of unreasonable financial burdens. The board may be given the additional authority and duty of acting as the zoning commission under article 3 of this chapter".

Having completed the work of preparing the Master Plan and having prepared a long range capital improvement program to be carried out within the financial limits of the City, the next step is to formally adopt the Master Plan — thus making it official.

Section 40:55-6 of the Revised Statutes reads as follows:

"Improvements submitted to board, governing body may overrule board. Whenever the planning board shall have adopted the master plan, or any part thereof, no street, square, park or public way, ground or open space or public building or structure, or major public utility, whether publicly or privately owned, shall be constructed or authorized in the municipality, or in the part thereof shown in the master plan as adopted, until the location, character and extent thereof has been submitted to the planning board for approval. The planning board shall, as soon as conveniently possible, report in writing to the governing body its action thereon, and in the case of disapproval its reasons therefor. The governing body may overrule such disapproval by a recorded vote of not less than two-thirds of its entire membership. The failure of the planning board to act on matter referred to it pursuant to this section, within forty-five days from and, after the date of official submission of the matter to it, shall be deemed approval."

The language of the above section clearly shows that the Planning Board does not usurp any of the Governing Body's authority and its actions are only advisory. The fact that every public improvement of a substantial nature must be submitted to the Planning Board for a report will, in itself, go along way toward insuring that the Plan will be intelligently carried out. Long experience has shown that there is no other practical way to accomplish this result, and in those cities which have operated under similar legisla-

tion, the accomplishments over a period of years have been substantial.

The securing of adherence to the Plan should not prove difficult. As improvements are proposed by the various Municipal Government Agencies, such as the Board of City Commissioners or the Board of Education, the plans would be brought in to the Planning Board before proceeding to the point where sums would be authorized or construction work undertaken. The Planning Board would examine the proposed improvement to see if it conformed to the general provisions of the Master Plan as they applied to the particular project. If the improvement conforms to the Master Plan the Planning Board so reports and the matter proceeds from that point. However, if there is a serious conflict between the location or type of improvement with the Master Plan, the Planning Board so reports and the Governing Body may proceed with the improvement provided the decision of the Planning Board is over-ruled by a vote of not less than two-thirds of its entire membership. In Newark, over-ruling of the Planning Board would require a vote of four out of five of the City Commissioners which is more than a majority.

Official Map

The New Jersey Law provides that the municipality may, by ordinance, establish the Master Plan as the official map of the Municipality. This means that a map may be drawn on which is shown the location of future streets, parks, playgrounds, schools, and other public buildings, and it indicates the precise limits of the land to be used for those purposes, as well as the intention of the City to eventually acquire such lands for public use.

The official map differs from the Master Plan in that once adopted, it becomes an official document which can only be changed

by ordinance. Experience has shown that it is difficult to determine a number of years in advance the exact boundaries of the future parks, schools, playgrounds and the like, and for that reason, it has not been customary to show these future improvements on the official map. It is highly important though to indicate the present and proposed street system on the map in order to prevent the encroachment of future buildings on the beds of future streets. In other words, the recommendations of the Major Street Plan as to future widenings and extensions should be drawn in detail on a map which should then be adopted by the Board of City Commissioners by ordinance. By establishing an official street map, the City will be able to avoid large future expenditures by not having to condemn buildings which will have been constructed in the beds of future widened streets. As such a regulation is authorized under the police power of the City in a manner similar to zoning, the question of compensation should not arise until such time as the property is actually taken for street purposes. There are, in specific cases of hardship, provisions in the Law which permit variations to be made by the Board of Adjustment.

Subdivision Control

In a community which possesses areas of vacant land suitable for residential development, the control of land subdivision is an important function of the Planning Board. Under the planning statute the Governing Body of the City may, by ordinance, authorize and empower the Planning Board to adopt regulations governing the subdivision of land within its jurisdiction, to approve plats showing new streets or highways, and to determine and fix the minimum sizes of lots.

Because of the fact that very little land remains in Newark that can be subdivided for residential use, this function of the Planning Board has not been emphasized.

Zoning Administration

The proposed new zoning ordinance should be adopted by the Planning Board and submitted to the Board of Commissioners for passage. After the ordinance has been adopted by the Board of Commissioners, any future changes must be referred to the Planning Board for a report. This is an important function of the Board and places it in a position of judging the merits of a proposed change and its effect on the master plan in general. As in the case of referring public improvements to the Planning Board, there is no veto exercised, and the Board of Commissioners still may make the change, even if an adverse report were rendered. Under no circumstances will the Planning Board supplant the Board of Adjustment or usurp any of its powers.

Having adopted the new zoning ordinance, it is most important that its stability be maintained and that variations be granted only in cases of extreme hardship. The New Jersey State Law is not effective in restricting the actions of Boards of Adjustment to relieving demonstrable hardship. If the Board of Adjustment continues to grant variances for uses not permitted within a district, the new ordinance will soon be undermined and will eventually lose its effectiveness.

Other Functions of the Planning Board

In addition to safeguarding the integrity of the Master Plan, the Board has other important functions to perform. While the Master Plan represents the best thinking based on conditions existing now or that can be foreseen in the reasonable future, the plan is not inflexible, and it should be changed or modified whenever conditions indicate such action. Keeping the plan up to date is a continuing function of the Board. In order to do this effectively, a close check must be made on trends of population, land use, building construction, traffic flow, and similar mat-

ters. The Planning Board should be a coordinating agency for the various governmental divisions of the City and should maintain a pool of information that can be used by commercial and industrial groups, private citizens, the City departments, as well as other governmental agencies. It is essential that the Planning Board be continued as a permanent part of the City Government and supported by adequate appropriation.

Enlistment of Public Support

The Master Plan will be effective only if it has the confidence of all of the citizens of Newark. Gaining this confidence and educating the public as to the objectives of the proposals must be accomplished if the plan is to be a vital influence in the future of the city.

The Citizen's Advisory Committee is a most important part of this program as the members have had a part in preparing the Plan over a period of several years. The interest of this group must be maintained by enlisting their support in carrying out various recommendations and in protecting the integrity of the Plan.

As the Plan cannot succeed unless all of the citizens of Newark know what it is and what it is attempting to accomplish, the provisions must be widely publicized throughout the Community. The Sub-Committee on Public Relations of the Citizens' Advisory Committee prepared an outstanding report on how this important matter should be handled. It is not sufficient to publish and distribute copies of the Master Plan report, as many people do not take the time to read such material. The recommendations of the Sub-Committee cover the whole field of publicity media, including radio, talks before interested groups, advertising, exhibits, newspaper articles, and many other means of publicity. Steps should be taken to put this program into effect at the earliest possible time.

Relationships with Other Agencies

An important function of the Planning Board is to co-ordinate the plans pertaining to Newark with those of surrounding municipalities, Essex County, State of New Jersey and the New York region. Local planning, particularly in the field of transportation cannot be fully effective unless it is integrated with the over-all plans pertaining to the Metropolitan District of which Newark is the center. Great opportunity exists for enlisting the support of Essex County and the State of New Jersey in improving highways leading to and through the City. The suburban areas which are contiguous to Newark have many problems in common with the central City. These problems could best be solved by the creation of a regional planning agency which would have general jurisdiction over the planning of such facilities as highways and recreational areas. In the Newark metropolitan area, there has been much discussion of creating an Essex County Planning Board, but, to date, no progress has been made. This is a step in the right direction and should be pursued, but consideration should also be given to an agency whose jurisdiction would extend beyond the limits of Essex County. Parts of Union, Passaic, Hudson and Bergen Counties are as closely associated to Newark as many of the communities of Essex County.

Pending the time until it is possible to create such an agency in Newark, the Planning Board should continue to support the work of the joint Council of the Municipal Planning Boards in Essex County and exercise leadership in this organization. While the Joint Council is entirely unofficial, it can be most helpful in bringing the various communities together and working out the solutions to common problems. The activities of this group in relation to crystalizing public opinion on the necessity of the Route 25 Freeway is indicative of its potential value in similar situations which might arise in the future.

Close liaison must be maintained between the Planning Board and the State Highway Department in order to be sure that the future State Highway program is closely coordinated with the Major Street Plan of the community. Similarly, the cordial relationship existing between the Port of New York Authority and the Planning Board should be continued in the future. The Port Authority program for developing transportation facilities in this area will be of utmost importance to the future Newark. Regional programs of transportation such as rapid transit and air and water transportation encompass a field beyond the physical limits of Newark, and Newark is almost helpless in attempting to solve these problems by itself.

Conclusion

In order to make the work of the Planning Board more effective in the future, and to assure continuation of a sound planning program for Newark, certain legal steps should be taken. These were discussed previously, and may be summarized as follows:

(1) Adoption of new Ordinance setting forth the power and duty of the Planning Board, in accordance with the provision of the State Law.

(2) Adoption of Ordinance to authorize the Planning Board to prepare land subdivision regulations and to control the platting of land within the corporate limits.

(3) Adoption by Ordinance of an official map showing present and future streets.

(4) Amendment to the State Zoning Act authorizing the City to adopt reasonable regulations for the elimination of non-conforming uses.

(5) Amendment to the Zoning Act to more clearly specify the powers and duties of the Board of Adjustment.